

IMPROVING BREASTFEEDING EDUCATION

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Abstract

Breastfeeding provides many health and psychological benefits to both mother and child. Many women initiate breastfeeding to obtain these benefits for themselves and their child. However, breastfeeding rates in the United States remain well below the recommendations at both 6 months and one year of age. Mothers need education and support to be successful in their breastfeeding efforts.

The purpose of this dissertation was to explore two interventions known to have an impact on breastfeeding success. The first was educating nurses so they can better support breastfeeding mothers. A pilot study examined an educational intervention on knowledge and attitudes about breastfeeding among pre-licensure nursing students using a two-group design. Two groups of nursing students were tested on their knowledge and attitudes concerning breastfeeding. One group received breastfeeding education using multifaceted teaching strategies from a professor certified as an International Board-Certified Lactation Consultant (IBCLC), while the other group received the education from a non-IBCLC professor. The two groups were compared for demographic and mean differences in knowledge and attitudes. The two groups were not equivalent with the comparison group having significantly more students with breastfeeding experience. However, the intervention did group did score significantly better on three items. One item was they felt more positively toward the adequacy of their breastfeeding education. This study and the results were reported in the first paper.

The second intervention explored was breastfeeding support groups. This intervention is recommended by the Surgeon General and the Baby Friendly Hospital Initiative and associated with increased duration of breastfeeding. However, little research has been done on the structure and content of breastfeeding support groups, especially in the United States, and how these groups impact the maternal breastfeeding experience. Two scholarly projects were included in

the dissertation related to breastfeeding support groups. The first project fulfilled the requirement of the minor synthesis paper. The purpose was to propose a curriculum for hospital-based support groups. Literature was reviewed and the author incorporated her experience leading breastfeeding support groups to develop a flexible but comprehensive curriculum. This manuscript was the second paper included in this dissertation and was submitted for publication.

The third manuscript was a report of a qualitative descriptive study of the experiences of women who attended breastfeeding support groups. A total of 20 mothers attending local breastfeeding support groups were interviewed. Abstraction was used for data analysis and common themes were identified. Five main themes were identified in this study: (1) mothers felt comfortable speaking openly without being judged, (2) mothers' mental health was improved by getting out and talking with mothers having similar experiences, (3) mothers needed assistance preparing to return to work, (4) attendance was driven by the need for help but maintained by comradery, and (5) group support increased mothers' confidence to continue breastfeeding longer.

These three articles will be useful for educating healthcare professionals, describing the importance of breastfeeding education and support, and demonstrating the benefits associated with education and support for breastfeeding mothers.

Keywords: breastfeeding, breastfeeding education, breastfeeding support, social support

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Chapter 1

Dissertation Proposal

Problem and Significance

Mothers inherently want to do what is best for their babies. Healthcare providers and national and international health organizations agree the best way to feed infants is with human milk (Anstey et al., 2017). Breastfeeding has many health benefits over commercial formula. These benefits range from decreased risk of some cancers for both mother and infant to decreased risk of ear infections for infant (Binns et al., 2016). Another important benefit is the reduced risk of obesity in children who were breastfed, especially given obesity is now an epidemic in the United States. Besides the physical health benefits there are also emotional and mental health benefits. Breastfeeding promotes bonding between the mother and infant (Klimeck Brauner Pissolato et al., 2015) and may reduce the risk of postpartum depression (Donaldson-Myles, 2011).

Due to these many benefits, more mothers are choosing to initiate breastfeeding. Eighty percent of mothers in the United States initiate breastfeeding (Anstey et al., 2017). However, many mothers are unsuccessful in achieving the American Academy of Pediatrics (AAP) recommendations of exclusive breastfeeding until 6 months (Eidelman & Schanler, 2012); currently only 20% of mothers and infants are meeting this recommendation. Furthermore, only 30% of mothers achieve the recommendation for continued breastfeeding of at least one year of age (Anstey et al., 2017).

Although, breastfeeding is a natural part of the childbearing process, there are barriers to successful breastfeeding (Syme et al., 2015). Some mothers report worry that their infant is not getting enough milk. Others cite sore nipples as a reason for weaning. Often, mothers state that breastfeeding is too demanding and unrealistic in modern society. However, studies also show new mothers who breastfeed may receive more sleep at night than mothers who formula feed

(Doan et al., 2007). Alternatively, mothers who are successful in breastfeeding cite convenience as a benefit of breastfeeding. Lactation consultants have explained that breastfeeding takes determination and patience, especially in the early weeks following birth. Once the initial challenges of breastfeeding are overcome breastfeeding can be a rewarding experience for both mother and child (Syme et al., 2015).

Education and support are integral to being successful in breastfeeding. Nurses and lactation consultants are in a unique position to offer breastfeeding mothers' education and support. The goal of this dissertation was to describe how mothers can receive the education and support they need. Three scholarly projects are presented in this dissertation. Two research studies are described, one regarding pre-licensure nursing student breastfeeding education for supporting new mothers in the birth setting and one describing maternal experiences with breastfeeding support groups. The third project describes the basis and development of an evidence-based curriculum for a breastfeeding support group.

As noted, a major contributor to mothers prematurely weaning their infants is lack of support, and potentially, knowledge of what to expect or how to manage breastfeeding challenges (Bird, 2017). Many mothers report feeling unsupported by healthcare providers, family, friends, and even society (Charlick et al., 2018). Mothers state breastfeeding education can differ from one provider to another, which is confusing and frustrating (Hunt & Thomson, 2017). Unrealistic expectations and not knowing how to overcome the challenges can lead to a mother giving up on her goal of breastfeeding. Giving mothers adequate support can help them overcome their breastfeeding challenges and increase their breastfeeding duration (Bosnjak et al., 2009).

Nurses play a key role in assisting and encouraging mothers in their early and continued breastfeeding efforts. Nurses see mothers prenatally in the clinic, are there during those first sleepless nights after the baby is born, and are present in pediatric offices those first weeks after birth. It is essential that nurses have adequate knowledge of normal breastfeeding for them to support mothers. However, some studies show breastfeeding education in nursing schools is minimal due to the vast amount of material needing to be covered (Bozzette & Posner, 2013; Davis & Sherrod, 2015).

There are many interventions being instituted to help mothers meet their breastfeeding goals, starting shortly after giving birth and throughout early infancy. The Baby Friendly Initiative was developed in 1991 by the World Health Organization (WHO) and the United Nations Children's Fund (UNICEF) with the aim of increasing global breastfeeding (Bevin, 1993). This initiative provides guidelines that hospitals should follow to give mothers their best opportunity to be successful. Key steps include prenatal breastfeeding education, breastfeeding education for all healthcare staff who care for the mother and providing support after discharge from the hospital. Adequate knowledge of normal breastfeeding is essential for a nurse to support mothers. Nurses play a key role in assisting and encouraging mothers in their breastfeeding efforts.

Lactation consultants are also key in breastfeeding success. They ensure healthcare staff are properly educated and support breastfeeding mothers, especially those who are having challenges. Patel and Patel (2016) explained that lactation consultants greatly increase the likelihood of a mother being successful in breastfeeding. One way in which lactation consultants assist mothers is through breastfeeding support groups. Accumulated evidence from research

regarding breastfeeding support indicates that support is positively associated with breastfeeding exclusivity and breastfeeding duration (McFadden et al., 2017).

Social support helps people through difficult times of their lives (House, 1981). The first breastfeeding support group in the United States was founded in 1956 (LLLI, 2020). La Leche League was formed as a group where women could learn about breastfeeding and receive support from other mothers (i.e. mother-to-mother support). The United States Surgeon General recognized the need to support breastfeeding mothers and recommended 20 actions to better support breastfeeding mothers (U.S. Department of Health and Human Services., 2011). Actions directly related to this project include Action 3 “strengthen programs that support mother-to-mother breastfeeding support and breastfeeding peer counselors” and Action 9 “provide breastfeeding education to healthcare employees that care for mothers and children” (U.S. Department of Health and Human Services., 2011, p. 40, p.46).

Breastfeeding support groups typically meet weekly and are a place a mother can bring her breastfeeding child to receive support, education, and empathy. Typically support groups that meet in hospitals are led by experienced breastfeeding specialist. Mothers that attend support groups report benefits such as gaining knowledge, confidence, and support (Wade et al, 2009). However, many mothers chose not to attend breastfeeding support groups and subsequently do not receive the help they need to continue breastfeeding (Hunt & Thomson, 2017).

There is a gap in research regarding breastfeeding support groups in the United States. Eliciting maternal experiences with breastfeeding support groups through qualitative research can provide critical information about the perceived benefits of attending support groups. Healthcare professionals can integrate this information into support group education. Furthermore, using evidence from this line of research can provide mothers with a better

understanding of the content and benefits of support groups and potentially increase mothers' motivation to attend a support group.

Purpose of Study

While many mothers initiate breastfeeding for its various benefits, mother and infant may not receive the full benefits due to premature cessation of breastfeeding. Lack of support and education can contribute to early or unintended weaning. The overall goal of this dissertation was to explore education and support as interventions to increase breastfeeding duration.

Research Questions

The following research questions were explored through these three papers and the research they were based upon.

1. Does breastfeeding education taught by a lactation consultant (IBCLC) significantly impact nursing students' attitudes and knowledge concerning breastfeeding?
2. What are the important breastfeeding topics that should be covered in breastfeeding support groups?
3. What are the experiences of women who attend breastfeeding support groups?

Significance of the Study for Nursing

There are many reasons breastfeeding education is significant to nursing. Studies show that nurses who are educated on breastfeeding are able to better support breastfeeding mothers (Nelson, 2007). If a mother has a positive perception of her healthcare provider's attitude toward breastfeeding, she is more likely to breastfeed. However, studies also show that when nurses give inconsistent breastfeeding information it is a detriment to maternal breastfeeding success (James et al., 2017).

The third project of this dissertation is significant due to the lack of research on breastfeeding support groups the experiences of American women who attend breastfeeding support groups. The United States has relatively low rates of breastfeeding compared to other developed countries. Every culture responds to and supports breastfeeding differently. For this reason, it is important that American women are able to share their experiences. Healthcare providers may be able to use the knowledge about these experiences to encourage other women to attend breastfeeding support groups.

Conceptual Underpinnings

Social Support Theory. House (1981) defined social support as interpersonal transactions that may involve emotional concern, instrumental aid, information, and appraisal. Support groups can offer individuals the social support they need but are not getting from their family and friends. Support groups have a long history in helping individuals overcome challenges and/or obstacles in life or health conditions such as addiction or grief. Breastfeeding support groups are designed to offer the interpersonal transactions that are delineated in House's theory. For example, mothers can discuss their breastfeeding challenges, receive helpful tips to improve their breastfeeding experience, are commended for their efforts, and are encouraged to continue breastfeeding.

The Breastfeeding Self-Efficacy Theory. The breastfeeding self-efficacy theory (Dennis, 1999) also informed this project. Breastfeeding self-efficacy is defined as maternal confidence to breastfeed and is positively correlated with breastfeeding duration. Dennis (1999) developed this nursing theory as a method of predicting if mothers will be successful in breastfeeding. This theory is based in Bandura's theory of social learning and includes four key

concepts: performance accomplishments, vicarious experiences, verbal persuasion, and physiological responses.

Performance accomplishments in breastfeeding can be defined as either having successfully breastfed a previous child or achieving goals the mother has set for breastfeeding and then continuing to breastfeed. For instance, a mother may set out with a goal to breastfeed only two weeks but once she achieves that goal, she gains performance accomplishment and decides to continue breastfeeding. Vicarious experiences are defined as watching other mothers breastfeed and hearing about their experiences. This can be done with family or friends. However, if a mother's family or friends did not breastfeed or were not successful, she might have to venture outside her social group to attain some vicarious experiences. Verbal persuasion is the positive encouragement a mother receives for her efforts to continue breastfeeding. Verbal persuasion can come from family members, friends, healthcare providers, or even strangers in community that reach out to commend a mother for her efforts. Physiological responses associated with breastfeeding can include decreased pain from breastfeeding by learning correct techniques, a strong attachment with infant, and the positive mood effects that are experienced due the increase in oxytocin in a mother's system when breastfeeding.

This theory aligned with the author's working hypothesis that mothers can experience increased breastfeeding self-efficacy and ultimately longer breastfeeding duration, by attending breastfeeding support groups. Often new mothers have little or no experience seeing other mothers breastfeed and a breastfeeding support group provides the opportunity to observe breastfeeding mothers, learn more about breastfeeding, converse with other breastfeeding mothers, and receive lactation advice from the group leader. Mothers attending breastfeeding support groups can witness several mothers breastfeeding at a time which can add to the

vicarious experiences needed for breastfeeding self-efficacy. Mothers also receive verbal persuasion from the person leading the support group and the other mothers who encourage and give emotional support to the mother. Often support groups will acknowledge when a mother has continued breastfeeding for 6 months and a year giving them a sense of performance accomplishment. Physiological responses may not be immediately provided during a support group, but sometimes mothers learn techniques that make breastfeeding easier and more comfortable for the mother.

Dennis created a tool to measure breastfeeding self-efficacy quantitatively (Dennis & Faux, 1999), which has been used extensively in breastfeeding research over the past two decades. However, since this project used qualitative methods the Breastfeeding Self-Efficacy Scale was not used. Interviewees had the opportunity to describe benefits of attending support group including whether support group attendance increased their breastfeeding self-confidence.

Philosophical underpinnings for qualitative portion of dissertation. Since little is known about the experiences of mothers who attend breastfeeding support groups, a qualitative approach is an appropriate method to gain this description. A qualitative descriptive design was used for this study. Sandelowski (2000) explained that the goal of qualitative descriptive research is to obtain a comprehensive summary of events. Qualitative descriptive design can answer a variety of general questions for researchers and is the best research method to use when a researcher is seeking straight answers about a phenomenon.

Naturalistic inquiry is one way to build knowledge. Sandelowski (2000) explained that qualitative descriptive designs need not be based on a specific methodological framework but can draw from naturalistic inquiry. Naturalistic inquiry is based on the need to understand human behavior and attain knowledge of their experiences by conducting research in their natural

environment (Patton, 2015). Lincoln and Guba (1985) stated that naturalistic ontology suggests that to gain the fullest understanding, observation needs to take place in a natural setting. For these reasons, the researcher attended and observed breastfeeding support groups, incorporated field notes, and conducted the study interviews in participant homes or a convenient location for the participant.

Definition of Terms

Exclusive breastfeeding – The infant receives no other food or liquid except for breastmilk.

Exclusive breastfeeding is recommended for the first six months of life, followed by addition of complementary foods to the infant's diet (Eidelman & Schanler, 2012).

Social support – Interpersonal transactions that may involve emotional concern, instrumental aid, information, and appraisal (House, 1981).

Breastfeeding support – Typically refers to encouraging the mother to breastfeed, commending her for her breastfeeding efforts, and assisting her in overcoming her breastfeeding challenges. Support for breastfeeding can come from healthcare providers, family, or community members (Wambach, 2016).

Breastfeeding education – The education given to a mother concerning breastfeeding. This education can be given prenatally, in the hospital, or after discharge (Morrison, 2016).

Typically, the education consists of recommendations concerning breastfeeding, benefits of breastfeeding, positioning and latching of infant, normal infant breastfeeding behaviors, and how to overcome breastfeeding challenges.

Breastfeeding self-efficacy – A mother's self confidence in her ability to breastfeed.

Breastfeeding duration – The length of time a mother breastfeeds either exclusively or partially. For this project duration will be reported in number of months. The American

Academy of Pediatrics recommends 6 months of exclusive breastfeeding and continuing to breastfeed for a minimum of a year (Eidelman, & Schanler, 2012).

Premature cessation of breastfeeding – When a mother stops breastfeeding before she meets her breastfeeding goals or before she meets the recommended amount of time.

Breastfeeding peer support– A lay person who has breastfed a child, received some education and training, and is paid to offer breastfeeding women support. The positions are typically through government initiatives such as Women Infants and Children Supplemental Nutrition Program (WIC).

Hospital-based support group – A support group that meets weekly in a hospital that sponsors the support group. This group is usually led by a certified lactation consultant (IBCLC).

La Leche League International (LLLI) – First organized breastfeeding support group in 1956. Groups are located throughout the world. Leaders of the groups are lay people but are required to have breastfed one of their children for at least one-year. They then receive training from more experienced leaders. Groups typically have a general curriculum for four repeating meetings advantages of breastfeeding, the family and the breastfed baby once the baby arrives, the art of breastfeeding and avoiding difficulties and nutrition and weaning (LLLI, 2018).

Assumptions

These assumptions are for the third part of the dissertation, the qualitative study, and include:

1. Evaluating a mother's experiences attending breastfeeding support groups will give insight into why women attend breastfeeding support groups and what they gain from attending these support groups.
2. Some primary causes of premature cessation of breastfeeding are lack of support and education.

3. Mothers attend breastfeeding support groups for assistance to overcome breastfeeding challenges and to receive social support to continue breastfeeding.
4. Leaders of breastfeeding support groups are equipped to offer a mother breastfeeding education and support.

Literature Review

A literature review was completed using key words “breastfeeding education” and “breastfeeding social support.” Keywords were searched in CINAHL, PubMed, and Google Scholar. The synthesis of this literature focused on breastfeeding education for healthcare providers, breastfeeding education for mother, types of breastfeeding support, benefits of attending breastfeeding support groups, and barriers to attending breastfeeding support groups. Only articles written in English were included in this review.

Breastfeeding Education for Health Care Providers

Health care providers influence maternal choices regarding breastfeeding initiation and experiences of breastfeeding, including managing challenges such as correct latch and positioning at the breast, treatment of sore nipples, knowing infant is feeding effectively, and engorgement. However, there is ongoing concern about the limited education that health care providers receive in their basic training and how that influences their ability to support mothers in initiating and continuing breastfeeding. Some healthcare providers believe the challenges of breastfeeding outweigh the benefits (U.S. Department of Health and Human Services., 2011). The Surgeon General understands the importance of educating healthcare providers on breastfeeding. Action 9 of *Surgeon General’s Call to Action to Support Breastfeeding* is that all healthcare providers receive adequate breastfeeding education (U.S. Department of Health and Human Services., 2011, p.45).

Specific to nursing, and as noted previously, nurses are key to supporting new mothers in the hospital following birth, thus education for them is imperative. One published literature review stated that there was a lack of evidence to link proper education of healthcare providers to the amount of support offered to mothers (Gavine et al., 2017). However, several studies have shown that implementing a breastfeeding educational intervention in nursing school increases student knowledge of benefits and their comfort level in assisting new mothers in breastfeeding (Bozzette & Posner, 2012; Davis & Sherrod, 2015; Yang et al., 2018).

Breastfeeding Education for Mothers

Prenatal breastfeeding education increases breastfeeding initiation, duration, and exclusivity (Pitts et al., 2015). How to latch and position the infant, benefits of breastfeeding, maintaining milk supply, infant hunger cues are topics mothers state are important to know (Pitts et al., 2015). Despite prenatal education, research has indicated that mothers were anxious over the ability to breastfeed (Craig & Dietsch, 2010). Mothers cannot be expected to remember everything they learned prenatally, and special situations may arise that require additional education. Therefore, education in the hospital and after discharge are important factors in breastfeeding exclusivity and duration (Wouk et al., 2017).

Breastfeeding Support Approaches

There are many forms of postpartum breastfeeding support including face to face, telephone, and online. However, a Cochrane review found that telephone support was not effective in increasing breastfeeding duration (Kvist, 1999). Face to face support was found to be effective in decreasing premature cessation of breastfeeding. Another more recent Cochrane review found similar results. McFadden et al. (2017) found that face to face interaction with either a professional or lay support person over a period of 4-8 sessions increases breastfeeding

duration. Support can be given by either a professional or lay person. Support can also be offered on-line either through discussion boards or on-line meetings (Gribble, 2001).

Benefits and Outcomes of Breastfeeding Support Groups

Breastfeeding duration. Premature cessation of breastfeeding is a common occurrence in breastfeeding mothers. Lewallen et al. (2006) found that only 55% of the mothers in their study received any breastfeeding support after discharge. However, their reasons for premature cessation of breastfeeding can be overcome with additional support and education. Breastfeeding support groups are effective in increasing breastfeeding duration. Bosnjak et al. (2009) conducted a non-randomized trial in Croatia and found that 83.8% of women who attended a breastfeeding support group were still breastfeeding at six months, whereas only 48.1% of women who chose not to attend the support group had reached the 6-month breastfeeding milestone. Breastfeeding rates increased in a hospital after implementing a prenatal breastfeeding education class and postpartum breastfeeding support group ($p < .001$) (Schreck et al., 2017). Additionally, the women who attended the breastfeeding support group were more likely to still be breastfeeding at six months.

Knowledge. Many mothers state they are unsure how breastfeeding works, what is normal, and how to carry it out (U.S. Department of Health and Human Services., 2011, p.10). Many mothers attend breastfeeding support groups to seek answers to their breastfeeding questions. A qualitative descriptive study examined experiences of women who attended public health nurse-led breastfeeding support groups in Ireland (Leahy-Warren et al., 2017). These mothers stated they lacked breastfeeding education and valued the information they received from the nurse and other mothers. Mothers appreciated weighing their infants during the group, and knowing their infant was gaining weight appropriately. Another qualitative study in Ireland

found 58% of the participants attended support groups to learn how to breastfeed. In addition to learning how to breastfeed, mother who attended support groups in the United Kingdom reported learning parenting skills (Wade et al., 2009).

Breastfeeding self-efficacy. Increasing breastfeeding self-confidence increases breastfeeding duration (Dennis, 1999). Breastfeeding support groups can build self-confidence. For example, women who attended support groups gained breastfeeding self-confidence (Nolan et al., 2015; Wade et al., 2009). Comprehensive evidence shows behavioral, demographic and psychological factors are related to breastfeeding duration (Thulier & Mercer, 2009). Breastfeeding self-confidence is the strongest factor that impacts breastfeeding duration, and receiving professional support increases breastfeeding self-confidence.

Social support. Another important benefit of breastfeeding support group is the emotional, appraisal, instrumental, and network support mother receives. Many mothers report not receiving appropriate breastfeeding support from friends and family (U.S. Department of Health and Human Services., 2011). Mothers attending a professional-led breastfeeding support group in the United Kingdom reported feeling less isolated and more themselves during the support groups (Tan et al., 2017). A major theme found was the mothers feeling emotionally supported through attending the support groups. Leahy-Warren et al. (2017) found mothers reported that they often felt ashamed or embarrassed for breastfeeding from society. Friends of family remarked that breastfeeding was disgusting, and the mothers must be crazy to continue breastfeeding. However due to the emotional and appraisal support received at the breastfeeding support groups, they were able to feel comfortable and confident in their choice to breastfeed. Attending a breastfeeding support group allowed mothers an opportunity to socialize and share their experiences. A similar study in the United Kingdom showed that attending breastfeeding

support groups gave mothers the informational and instructional support needed to overcome the challenges of breastfeeding (Fox et al., 2015).

Barriers to Attending Breastfeeding Support Groups

Breastfeeding support groups can assist mothers who experience challenges in breastfeeding. Yet, many women do not attend support groups. Some challenges to attending support groups include geographical distances, disabilities, and lack of transportation (Gribble, 2001). Other reasons mothers do not attend breastfeeding support groups is due to inadequate explanation or promotion by healthcare providers (Hunt & Thompson, 2017). Because breastfeeding support groups and their benefits were not adequately explained, mothers worried they may be judged by other mothers and the groups would not be beneficial.

Summary

In summary, breastfeeding education and social support are important for a mother to successfully breastfeed. The mother needs to receive breastfeeding education prenatally and throughout the time she is breastfeeding her child. Nurses can educate and support mothers, but only if they have been trained and educated themselves. The relatively limited base of non-experimental research on breastfeeding support groups suggests potential outcomes of increased breastfeeding duration, improved breastfeeding self-confidence, and receipt of emotional, instructional, informational, and appraisal support. However, there is a gap in the literature concerning breastfeeding support groups in the United States. Specifically, there is a lack of evidence on why women attend breastfeeding support groups, what benefits women receive from support groups, what barriers exist to attending groups, and how teaching is done during the group. Conducting a qualitative study in the United States could give healthcare providers an understanding of the benefits of support groups and what mothers can gain by attending them.

Methods

Research Design

The research question for the third scholarly project of this dissertation was, “What are the experiences of women who attend breastfeeding support groups?” The purpose was to gain an understanding of the maternal experiences of attending breastfeeding support groups and how these experiences may have influenced their breastfeeding experiences. A qualitative descriptive design was used for this study. Naturalistic inquiry is the epistemological foundation for this method. The breastfeeding self-efficacy theory and House’s social support theory were used to develop pertinent interview questions (Dennis, 1999; House, 1981).

Sample and setting. The sample for this study consisted of first-time mothers who were breastfeeding a healthy child or children between the ages of 2 months and a year old. Participants were breastfeeding mothers who had attended a breastfeeding support group in various settings in a metropolitan area, including hospitals, clinics, and other community sites. Mothers must have attended at least three support group meetings to be enrolled. Attending one or two meetings would likely not provide enough group support to meaningfully describe experiences. Breastfeeding a child is a process that constantly changes, and regular attendance was required to ensure participants were receiving consistent education and support.

Recruitment overview. The total number of initial participants selected was twenty depending on when saturation of findings was reached. Similar qualitative studies have used between seven to twenty participants to reach data saturation (Leahy-Warren et al., 2017; Noriko et al., 2017). Nelson (2017) explained saturation is reached when no new messages or information is being found. Seven different support groups were visited, some of them were visited twice to recruit a diverse sample. Some lactation consultants and La Leche League

Leaders shared the study on their Facebook pages. Mothers attending additional support groups contacted the researcher wanting to be part of the study. If qualifications were met mothers were enrolled in the study which added to the diversity of the sample. Race and social class were not a factor in recruiting.

Study Enrollment, Data Collection and Procedures

Rapport-building with participants began at the breastfeeding support group. First, the researcher introduced herself and explained the study and study's purpose. The study purpose was explained as wanting to understand women's experiences in attending breastfeeding support groups and how attendance influenced their breastfeeding experience. Eligible mothers were approached. If the mother was interested, she was given an information sheet (Appendix A) and asked for either her phone number or email so she could be contacted later. Interested mothers received a study consent form either at the support group meeting or directly prior to the interview (Appendix B). It was noted in the demographic data collection if the mother had twins or higher order multiples.

The researcher ensured the participants that she would remain nonjudgmental throughout the interview process (Patton, 2015). The researcher built upon the rapport by being patient with the participant and allowing time for the participant to care for infant throughout the interview. This was done to allow the participant to feel unrushed or inconvenienced. The first questions of the interview were simple and easy for the participant to answer thus allowing them to feel comfortable. Presupposition questions were used to establish rapport (Patton, 2015). The process of using presupposition questions shows that the researcher believes what the participant is sharing is unique and important.

Semi-structured interviews were used to collect data from participants (Appendix C). Interviews are useful in qualitative research because a deep, rich description of their experiences is obtained and clarification can be continually checked (Marshall & Rossman, 2016). Interview questions were open-ended and prompts were used to ensure all relevant data was obtained. Interviews took place in the participant's home, where the participant and her infant were observed in their natural setting. If the mother did not feel comfortable meeting in her home, the meeting took place in a mutually agreed upon, convenient location such as a library or coffee shop. Interviews were recorded using a digital audio recorder. A cell phone with digital recorder application was used as a back-up to record the interview in case the digital audio recorder failed. Interviews were transcribed following each interview by a professional transcriptionist or the researcher.

In addition to interviews, triangulation was achieved through observation and using related artifacts. Breastfeeding support groups were attended by the researcher and field notes were taken, used as observations, and analyzed which contributed to and supported findings. Artifacts used included the online periodical *New Beginnings* which is distributed by La Leche League, a mother-to-mother breastfeeding support group and online Facebook groups administrated by breastfeeding support groups. Artifacts can supplement observation and interviews (Marshall & Rossman, 2016). The analysis of these documents helped identify the experiences and benefits that the group leaders expect the participants to receive by attending.

Data Analysis

Abstraction as described by Graneheim and Lundman (2004) was used for data analysis of the interviews. Abstraction is the process in which statements are taken from the interviews condensed, grouped, and then coded. The focus of this data analysis was on content area.

Content area points to specific areas and needs little interpretation which parallels with the qualitative descriptive design of this study. Content area can include parts of the interview, observation, or artifact that are related to a specific topic.

The interviews were either transcribed by a professional transcriptionist or this researcher. After, the interviews were transcribed, the researcher double-checked the transcriptions against the audio to ensure no errors were made. Then the researcher read through the transcripts once only taking mental notes to get an overall idea of what the participant is trying to convey and what aspects of the interview produced important, quality data. This helped the author immerse in the data (Marshall & Rossman, 2016). The transcriptions were then read through a second time. This time notes were taken on possible meaningful units. During a third read the researcher selected meaningful units. These units were transposed into a table where the researchers condensed the meaning units. The condensed meaning units were then grouped under headings to place similar data points together. Then the condensed meaning units were coded. Once coding was completed data were reviewed to search for common themes and relationships. Once important themes were identified, transcriptions were read through again to select quotes that demonstrated themes and supported the author's findings.

Many methods were used to ensure the methodological rigor of this study. Audit trails were kept through the recruitment and research process. Reflexive journaling was used to acknowledge and create awareness of researcher bias. Trustworthiness was demonstrated by acknowledging and accounting for credibility, dependability, and transferability.

Credibility is defined as having confidence in the process of data analysis and maintaining the intended focus of the qualitative research (Graneheim & Lundman, 2004). Credibility is composed of three factors - the credibility of the researcher, rigorous fieldwork

methods, and using appropriate qualitative methods. The first aspect of credibility is designing a study that will achieve its purpose. This study met this criterion since all aspects of this study design were discussed and approved by experienced qualitative researchers including the author's faculty mentor and dissertation committee members. Having a diverse sample also leads to credibility. Purposeful sampling ensured that the sample was diverse. Meaning unit selection and coding is also related to credibility. Using a proven and researched method to analyze data increases the credibility of the results. To ensure the researcher conducted the analysis correctly and appropriately, three researchers were consulted. One of the researchers is an expert in the field of lactation and the other two are experts in qualitative research. Maintaining records of the data analysis and sharing the processes with these researchers added to the credibility of this study.

Dependability was ensured by sharing the research process and data analysis simply and completely. When the results of the study are disseminated, the author will explain how she collected her data and came to her conclusions. In this way readers can come to their own conclusions on whether the data were analyzed appropriately or if they feel there are alternative conclusions (Lincoln & Guba, 1985). Another issue with dependability is that time can affect data collection and the significance of results (Graneheim & Lundman, 2004). Adhering to the timeframe of this study and collecting and analyzing the data in a timely manner helped ensure the focus of the research is maintained.

Transferability is the ability to apply the findings to other settings or groups. Since this study has a very specific population (women who attend breastfeeding support groups), the data may not be transferable to other groups. The researcher recruited from a variety of breastfeeding support groups including hospital-based, community based, groups affiliated with pediatric

offices, and groups associated with private practice lactation consultants. One approach to aid in transferability will be to share detailed demographic information about the participants (Graneheim & Lundman, 2004). Triangulation adds to the transferability of the results (Marshall & Rossman, 2016) and add to the dependability and confirmability of the study (Lincoln & Guba, 1985).

Trustworthiness

Respect, justice, and beneficence were used during the interviews and observational experiences. No potential harm was noted to participants. Participants may have received a cathartic benefit by sharing their experiences with an empathetic listener (De Chesnay, 2015). Member checks were conducted throughout the interview and at the end of interview to ensure the meaning of participants' thoughts and feelings were conveyed (Cutcliffe, & Ramcharan, 2002). Participants were made aware that they may be contacted after the initial interview if further information or clarification was needed. Peer debriefing was also used to show trustworthiness. The researcher collaborated with members of dissertation committee who are experienced researchers and were able to ensure the interpretations of the data are logical and clear (Marshall & Rossman, 2016).

Human Subjects Committee (HSC) Considerations

Approval for study was obtained from the KUMC IRB using the Flexible Review option. Providers of individual breastfeeding support groups were identified and queried about the potential to attend and invite participants to take part in the study. Additional permissions/support letters and IRB approval from external sites was garnered as necessary.

Privacy Considerations. Personal participant identifiers were not linked with either the audio or transcription of interviews. Participants were assigned a chronological participant

number that was used to identify the interviews. The forms containing the participants' personal information including name, phone number, and participant number were kept in a locked cabinet and were destroyed at the end of the study data collection and analysis phases.

Informed Consent. Mothers willing to participate in the study signed a consent (Appendix B) after having read through the information sheet and asked questions (Appendix A). Audible recordings of the interview were kept on a secured audio device until the transcriptions were completed. Transcriptions were kept on a password locked laptop.

Data Security and Management. Interviews were recorded using a digital recorder. The digital recorder was kept either with the researcher or in a locked office. A cell phone was used in case of equipment failure. The cell phone was password protected to secure digital data and participant confidentiality. Interviews were labeled by a participant number, which was the order in which they were interviewed. The first interview was labeled participant 1 and this process continued with all the participants. Audio recordings were transcribed by a third party, who is a HIPPA-certified professional transcriptionist, or the researcher. All communication and file transfers with the transcriber were done through KUMC protected secure e-mail system.

Data Protection.

All documents pertaining to the study were secured and will be destroyed in accordance with the University of Kansas Medical Center (KUMC) record retention policy (KUMC, n.d.). All data and study documents were transferred to a secure KUMC server dedicated to storage for KUMC student research data and the faculty mentor's Q-drive for storage. Only four people had access to the study data, the researcher, the principle investigator/faculty mentor, and two other dissertation committee members.

Study Time Frame

After IRB approval study recruitment, enrollment, and data collection started. Data were collected for approximately four months from breastfeeding support groups attended and interviews conducted throughout the fall of 2019. Data analysis began at the start of 2020 and was completed in approximately four months.

Proposed Manuscripts

Manuscript 1: Breastfeeding Education for Nursing Students. Healthcare providers, such as pre-licensure nursing students, typically receive minimal education on the benefits, challenges, and skill needed to assist with breastfeeding (Davis & Sherrod, 2015). The purpose of this study was to determine if teaching by an International Board-Certified Lactation Consultant IBCLC is an effective method to increase nursing students' knowledge and attitudes on breastfeeding. This study design was quasi-experimental because it wasn't feasible to randomize the two groups that were compared. A convenience sample consisting of two cohorts of nursing students in their last semester of nursing school and who had taken their maternal/child course the semester before were voluntarily recruited to take the survey. One cohort was taught by a nurse educator without additional lactation content preparation or certification. The second cohort was taught by a nurse educator who was an IBCLC. The two groups were compared using an assessment derived and abbreviated from the Australian Breastfeeding Attitude and Knowledge Questionnaire (Brodribb et al., 2008) (Appendix D).

IRB approval was sought from Missouri Western State University where the students attended. Expedited approval was granted (Appendix E). Students were encouraged to answer truthfully, and no personal identifiers were collected. Demographic information was obtained, and independent T-tests compared the two cohorts using SPSS. Differences in their means were

compared for total score, total attitude, total knowledge, perception of breastfeeding education received, and confidence in the ability to assist a breastfeeding mother were all reviewed.

No significant between group difference was found for mean attitude, knowledge, and total scores ($N = 78$). The two groups differed significantly in the perceived sufficiency of the students' breastfeeding education ($t = -2.294$; $p = .024$). The students taught by the IBCLC indicated they had received adequate education on the subject. Additional analysis and interpretation were completed for the study report manuscript. Authors for this study include the author, Dr. Wambach, and the author's four research students that assisted with the literature review, data collection, and analysis. This manuscript was prepared in accordance for publication for *Nurse Education Today*.

Manuscript 2: A Proposed Curriculum for Breastfeeding Support Groups.

Creating a breastfeeding support group curriculum was the subject of this paper. Currently there is no formal, approved curriculum designed for hospital-based breastfeeding support groups. A proposed curriculum is important to ensure mothers are receiving relevant breastfeeding education to help them overcome breastfeeding challenges and potentially help mothers meet their breastfeeding goals. To develop this curriculum literature was reviewed to glean current breastfeeding support group practices that are effective in addressing breastfeeding challenges through education and support.

This paper was developed for the education minor paper and was further developed and refined. For example, beyond the research reviewed to this point in the paper, current recommendations published in *Core Curriculum for Interdisciplinary Lactation Care* (LEAARC, 2019) were used to further refine and strengthen the evidence base for the curriculum and paper.

The paper was formatted for publication and submitted to the journal *Clinical Lactation*.

Authors for this paper will include this author, Drs. Lori Liebl, and Karen Wambach.

Manuscript 3: The Experiences of Mothers who Attend Breastfeeding Support

Groups. The third and final manuscript includes the results of a qualitative descriptive study on maternal experiences when attending breastfeeding support groups. As discussed in the methods section, data was content analyzed, themes were identified, and the results were prepared in accordance for publication for *The Journal of Human Lactation*. Authors for this paper comprise this author, Drs. Karen Wambach, Jill Peltzer, Kristi Williams, Holly Hull, and Lori Liebl.

Summary

The author has spent over 15 years in her clinical and teaching experience helping mothers achieve their breastfeeding goals. Her doctoral course products, when possible, were breastfeeding focused and her minor was in nursing education. When deciding upon the research topics and the three papers included in this dissertation, the author decided to choose topics that combined both education and breastfeeding.

Nurses are trusted healthcare providers who are in a key position to educate and support breastfeeding mothers. However, many nurses do not feel confident in the ability to assist breastfeeding mothers (Davis & Sherrod, 2015). A primary reason for their lack of confidence is due the limited amount of breastfeeding education they receive in nursing school. The author performed a small study to identify if receiving teaching by an IBCLC impacted nursing students' attitude and knowledge concerning breastfeeding.

To fulfill her minor in nursing education requirement the author developed a curriculum for breastfeeding support groups. This curriculum can be used to guide the different discussions that may occur in a breastfeeding support group. It can also be used by new or less experienced

support group leaders who want to ensure they are covering important topics that breastfeeding mothers should receive education about.

The final piece of this project is conducting a qualitative study of experiences of mothers who attend breastfeeding support groups. Social support can be vital to a breastfeeding mother's success. She needs a place where she can express her concerns, vent her frustrations, and receive reassurance that she is doing a good job. Breastfeeding support groups can be that safe haven for breastfeeding mothers. In these groups, they need not worry about being judged or gawked at. They can feel included, and they are encouraged to share their opinions and experiences.

However, there is almost no research on the experiences of American mothers who attend breastfeeding support groups. Why do they attend? How do they feel when they attend? Does attending the support groups impact their breastfeeding relationship and process? These are the questions the author hopes to answer through her research. Through these three papers the author will add to the evidence base regarding education and support for breastfeeding to ultimately make a positive and significant impact.

References

- Anstey, E. H., Jian, C., Elam-Evans, L. D., Perrine, C. G., & Chen, J. (2017). Racial and geographic differences in breastfeeding - United States, 2011-2015. *MMWR: Morbidity & Mortality Weekly Report*, 66(27), 723-727. doi:10.15585/mmwr.mm6627a3
- Bevin, T. (1993). The Baby-Friendly Hospital Initiative. *International Journal of Childbirth Education*, 8(2), 9.
- Binns, C., Lee, M., & Low, W. Y. (2016). The long-term public health benefits of breastfeeding. *Asia-Pacific Journal of Public Health*, 28(1), 7-14. doi:10.1177/1010539515624964
- Bird, H. (2017). Changing the conversation. *Community Practitioner*, 90(6), 24-28.
- Bosnjak, Grguric, J., Stanojevic, M., & Sonicki, Z. (2009). Influence of sociodemographic and psychosocial characteristics on breastfeeding duration of mothers attending breastfeeding support groups. *Journal of Perinatal Medicine*, 37(2), 185-192.
doi:10.1515/JPM.2009.025
- Bozzette, M., & Posner, T. (2013). Increasing student nurses' knowledge of breastfeeding in baccalaureate education. *Nurse Education in Practice*, 13(3), 228-233.
doi:10.1016/j/nepr.2012.08.013
- Brodribb, W., Fallon, A., Jackson, C., & Hegney, D. (2008). Breastfeeding and Australian GP registrars -- their knowledge and attitudes. *Journal of Human Lactation*, 24(4), 422-430.
- Charlick, S. J., Pincombe, J., McKellar, L., & Gordon, A. L. (2018). Navigating the social complexities of breastfeeding: An interpretative phenomenological analysis of women's experiences. *Evidence Based Midwifery*, 16(1), 21-28.

- Craig, H. J., & Diestch, E. (2010). 'Too scary to think about': First time mothers' perceptions of the usefulness of antenatal breastfeeding education. *Women & Birth*, 23(4), 160-165.
doi:10.1016/j.wombi.2010.04.004
- Cutcliffe, J. R., & Ramcharan, P. (2002). Leveling the playing field? Exploring the merits of the ethics-as-process approach for judging qualitative research proposals. *Qualitative Health Research*, 12(7), 1000-1010.
- Davis, A., & Sherrod, R. A. (2015). Effects of an educational intervention on baccalaureate nursing students' knowledge and attitude in providing breastfeeding support to mothers. *International Journal of Childbirth Education*, 30(4), 8-12.
- Dennis, C. (1999). Commentary. Theoretical underpinnings of breastfeeding confidence: A self-efficacy framework. *Journal of Human Lactation*, 15(3), 195-201.
- Dennis, C., & Faux, S. (1999). Development and psychometric testing of the Breastfeeding Self-Efficacy Scale. *Research in Nursing & Health*, 22(5), 399-409.
- De Chesnay, M. (2015) *Nursing research using data analysis*. Springer.
- Doan, T., Gardiner, A., Gay, C. L., & Lee, K. A. (2007). Breast-feeding increases sleep duration of new parents. *Journal of Perinatal & Neonatal Nursing*, 21(3), 200-203.
- Donaldson-Myles, F. (2011). Postnatal depression and infant feeding: A review of the evidence. *British Journal of Midwifery*, 19(10), 619-624.
- Eidelman, A. K., & Schanler, R. J. (2012). Breastfeeding and the use of human milk. *Pediatrics*, 129(3), 598–601. doi:10.1542/peds.2011-3552
- Fox, R., McMullen, S., & Newburn, M. (2015). UK women's experiences of breastfeeding and additional breastfeeding support: A qualitative study of Baby Café services. *BMC Pregnancy & Childbirth*, 15(1), 147. doi:10.1186/s12884-015-0581-5

- Gavine, A., MacGillivray, S., Renfrew, M. J., Siebelt, L., Haggi, H., & McFadden, A. (2017). Education and training of the healthcare staff in the knowledge, attitudes, and skills needed to work effectively with breastfeeding women: A systematic review. *International Breastfeeding Journal*, 12(6), 1-10. doi:10.1186/s13006-016-0097-2
- Graneheim. U. H., & Lundman, B. (2004). Qualitative content analysis in nursing research: concepts, procedures, and measures to achieve trustworthiness. *Nurse Education Today*, 24(2), 105-112.
- Gribble K. D., (2001). Mother-to-mother support for women breastfeeding in unusual circumstances: a new method for an old model. *Breastfeeding Review*, 9(3), 13–19.
- House, J. S. (1981). *Work stress and social support*.: Addison Publishing.
- Hunt, L., & Thomson, G. (2017). Pressure and judgement within a dichotomous landscape of infant feeding: A grounded theory study to explore why breastfeeding women do not access peer support provision. *Maternal & Child Nutrition*, 13(2), Article e12279. doi:10.1111/mcn.12279
- James, L., Sweet, L., & Donnellan-Fernandez, R. (2017). Breastfeeding initiation and support: A literature review of what women value and the impact of early discharge. *Women & Birth*, 30(2), 87-99. doi:10.1016/j.wombi.2016.09.013
- Klimeck Brauner Pissolato, L., Neumaier Alves, C., Alende Prates, L., Antunes Wilhelm, L., & Ressel, L. B. (2015). The breastfeeding experience in recent mothers' view. Contributions for nursing. *Journal of Nursing UFPE / Revista de Enfermagem UFPE*, 9(8), 8771-8777. doi:10.5205/reul.7696-67533-1-SP-1.0908201502
- Kvist, L. J. (1999). Review: Support interventions reduce cessation of breastfeeding before 2 months [commentary on Silorski, J., & Renfrew, M. J. Support for breastfeeding mothers.

- (Cochrane Review, latest version 30 Jun 1998) In: Cochrane Library. Oxford: Update Software. *Evidence Based Nursing*, 75.
- Lactation Education Accreditation and Approval Review Committee (2019). *Core curriculum for interdisciplinary lactation care* (S. H. Campbell, J. Lauwers, R. Mannel, & B. Spencer, Eds.). Jones and Bartlett Learning.
- La Leche League International (2020). A brief history of La Leche League International. <https://www.llli.org/about/history/>
- La Leche League International (2018). La Leche League meeting ideas. <https://www.llli.org/leader-pages/meeting-ideas/>
- Leahy-Warren, P., Creedon, M., O'Mahony, A., & Mulcahy, H. (2017). Normalising breastfeeding within a formula feeding culture: An Irish qualitative study. *Women & Birth*, 30(2), e103-e110. doi:10.1016/j.wombi.2016.10.002
- Lewallen, L. P., Dick, M. J., Flowers, J., Powell, W., Zickefoose, K. T., Wall, Y. G., & Price, Z. M. (2006). Breastfeeding support and early cessation. *JOGNN: Journal of Obstetric, Gynecologic & Neonatal Nursing*, 35(2), 166-172. doi:10.1111/j.1552-6909.2006.00031.x
- Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. Sage.
- Marshall, C., & Rossman, G. B. (2016). *Designing qualitative research* (6thed.). Sage.
- McFadden, A., Gavine, A., Renfrew, M. J., Wade, A., Buchanan, P., Taylor, J. L., Veitch, E., Rennie, A. M., Crowther, S. A., Neiman, S., & MacGillivray, S. (2017). Support for healthy breastfeeding mothers with healthy term babies. *The Cochrane Database of Systematic Reviews*. <https://doi.org/10.1002/14651858.CD001141.pub5>

- Morrison, B. (2016). Breastfeeding education. In K. Wambach, J. Riordan (Eds.), *Breastfeeding and Human Lactation* (5th ed., pp. 859-894). Jones Bartlett Learning.
- Nelson, A. M. (2007). Maternal-newborn nurses' experiences of inconsistent professional breastfeeding support. *Journal of Advanced Nursing*, 60(1), 29-38.
- Nelson, J. (2017). Using conceptual depth criteria: Addressing the challenge of reaching saturation in qualitative research. *Qualitative Research*, 17(5), 554-570.
doi:10.1177/1468794116679873
- Nolan, A., Kennedy, S., O'Malley, A., Kirwan, M., Hughes, A., Barry, A., Goodwin, V., Cunningham, A. M., Coyne, H., & Nugent, L. (2015). Mothers' voices: Results of a survey of public health nurse-led breastfeeding support groups. *Primary Health Care*, 25(7), 26-31. doi:10.7748/phc.25.7.26.e998 8
- Noriko, T., Mineko, M., Kayoko, K., & Kiyoko, K. (2017). Qualitative study of breastfeeding support by public health nurses in Japan. *Health*, 9(3), 451-458.
doi:10.4236/health.2017.93032
- Patel, S., & Patel, S. (2016). The effectiveness of lactation consultants and lactation counselors on breastfeeding outcomes. *Journal of Human Lactation*, 32(3), 530-541.
doi:10.1177/0890334415618668
- Patton, M.Q. (2015). *Qualitative research & evaluation methods* (4th ed.). Sage.
- Pitts, A., Faucher, M. A., & Spencer, R. (2015). Incorporating breastfeeding education into prenatal care. *Breastfeeding Medicine*, 10, 118-123. doi:10.1089/bfm.2014.0034
- Sandelowski, M. (2000). Focus on research methods. Whatever happened to qualitative description?. *Research in Nursing & Health*, 23(4), 334-340.

- Schreck, P. K., Solem, K., Wright, T., Schulte, C., Ronnisch, K. J., & Szpunar, S. (2017). Both prenatal and postnatal interventions are needed to improve breastfeeding outcomes in a low-income population. *Breastfeeding Medicine*, 12(3), 142-148.
doi:10.1089/bfm.2016.0131
- Syme, J., Holt, S., Fell, K., & Crawley, L. (2015). Overcoming breastfeeding challenges. *Community Practitioner*, 88(6), 29-31.
- Tan, M., Rheeston, M., & Douglas, H. (2017). Using the Solihull Approach in breastfeeding support groups: Maternal perceptions. *British Journal of Midwifery*, 25(12), 765-773.
doi:10.12968/bjom.2017.25.12.765
- Thulier, D., & Mercer, J. (2009). Variable associated with breastfeeding duration. *JOGNN: Journal of Obstetric, Gynecologic & Neonatal Nursing*, 38(3), 259-268.
doi:10.1111/j.1552-6909.2009.01021.x
- University of Kansas Medical Center. (n.d.) Legally informed consent.
<http://www.kumc.edu/Documents/hrpp/Topical%20Guidance/Legally%20Effective%20Informed%20Consent.pdf>
- University of Kansas Medical Center. (n.d.) Research record management, disposition and retention policy. <https://kumc.policystat.com/policy/5607044/latest/#autoid-r4mzx>
- U.S. Department of Health and Human Services. (2011). *The Surgeon General's call to action to support breastfeeding*. Washington, DC: U.S. Department of Health and Human Services, Office of the Surgeon General.
- Wade, D., Haining, S., & Day, A. (2009). Breastfeeding peer support: Are there additional benefits? *Community Practitioner*, 82(12), 30-33.

- Wambach, K. (2016). The familial and social context of breastfeeding. In K. Wambach, J. Riordan (Eds), *Breastfeeding and Human Lactation* (5th ed., pp. 915-941). Jones and Bartlett Learning.
- Wouk, K., Lobbok, M. H., & Tully, K. P. (2017). Systematic review of evidence for Baby-Friendly Hospital Initiative step 3. *Journal of Human Lactation*. 33(1), 50-82.
doi:10.1177/0890334416679618
- Yang, S.-F., Salamonson, Y., Burns, E., & Schmied, V. (2018). Breastfeeding knowledge and attitudes of health professional students: A systematic review. *International Breastfeeding Journal*, 13, 1. doi:10.1186/s13006-018-0153-1

Chapter 2

Student Nurses' Breastfeeding Knowledge and Attitude Following Instruction by a Lactation

Consultant: A Quasi-Experimental Study

This manuscript was co-authored by: Karen Wambach Ph.D., RN, IBCLC, FILCA, FAAN, Alison Nutt BSN, RN, Alexie Davis BSN, RN, Samantha James BSN, RN, and Sebastien Harmon BSN, RN.

Abstract

Background: Breastfeeding support and information are important to mother's early breastfeeding initiation experiences. Nurses in the perinatal (or mother/baby) setting are in a prime position to support and educate breastfeeding mothers. However, most pre-licensure nursing students receive little to no lactation education in their education and clinical training.

Objective: The purpose of this study was to determine if didactic and simulation breastfeeding instruction from an International Board Certified Lactation Consultant (IBCLC) as compared to a non-breastfeeding specialist influenced nursing students' breastfeeding knowledge and attitudes.

Design: This study used a "naturally occurring" two-group quasi-experimental design.

Setting: The study occurred at a public state university in Midwest United States.

Participants: Seventy-nine fourth semester nursing students from two different cohorts participated in the study; the historical group and treatment groups were composed of 39 and 40 students, respectively.

Methods: Students from each cohort received didactic and simulation breastfeeding instruction from instructors with different breastfeeding content and clinical expertise; i.e. an IBCLC and non-IBCLC. Each cohort completed an abbreviated Australian Breastfeeding Knowledge and Attitude Questionnaire in the semester following their maternal/child course. Data from the two groups were compared using independent t-tests.

Results: The students taught by the IBCLC felt more confident they received adequate breastfeeding education compared to the other cohort. There were no significant differences between the two groups on breastfeeding attitudes and total knowledge scores, but treatment

group students scored significantly higher on one knowledge item, one attitude item, and the item related to adequacy of breastfeeding education received. The historical control group was older and more of the students had personal experience with breastfeeding. These differences may have affected the results.

Conclusions: Having an IBCLC participate in educating students on breastfeeding and using a multifaceted approach may increase confidence in knowledge and application of breastfeeding content. Additional research is needed to determine the most effective way to instruct nursing students on breastfeeding.

Keywords: breastfeeding, simulation, classroom, didactic pre-licensure nursing education

Nurses play a key role in assisting and encouraging mothers in their early and continued breastfeeding efforts. Nurses see mothers prenatally in the obstetric clinic, in the maternity unit before and after the baby is born and in the pediatrician office after birth. It is essential that nurses have adequate knowledge of normal breastfeeding to support mothers. However, studies show breastfeeding education in nursing schools is minimal due to the vast amount of other content needing to be covered (Bozzette & Posner, 2013; Davis & Sherrod, 2015). The purpose of this study was to determine if simulation and didactic instruction by an International Board-Certified Lactation Consultant (IBCLC) in comparison to instruction from a non-breastfeeding specialist was an effective method to increase nursing students' breastfeeding knowledge, attitude towards breastfeeding, perception of adequacy of breastfeeding education received, and confidence in ability to assist a breastfeeding mother.

Background/Literature

There are many reasons breastfeeding education is significant to nursing. Studies show that nurses who have been educated on breastfeeding are better able to support breastfeeding mothers (Nelson, 2007). Nelson found that if a mother has a positive perception of her healthcare provider's attitude toward breastfeeding, she was more likely to breastfeed. However, studies also show that when nurses give inconsistent breastfeeding information it can be detrimental to breastfeeding success (James et al., 2017).

Nurses influence women's choices regarding breastfeeding initiation and women's experiences of breastfeeding, including managing breastfeeding challenges (Bozzette & Posner, 2013). However, there is ongoing concern about the limited education that health care providers receive in their basic training and how that influences their ability to support mothers in initiating and continuing breastfeeding (Dodgson, & Tarrant, 2007; Folker-Maglaya et al., 2018;

McFadden et al., 2017; Spatz, & Pugh, 2001). The Surgeon General understands the importance of educating healthcare providers on breastfeeding. Action 9 of *Surgeon General's Call to Action to Support Breastfeeding* states that all healthcare providers should receive adequate breastfeeding education (U.S. Department of Health and Human Services., 2011, p.45).

Specific to nursing, and as noted previously, nurses are key to supporting new mothers in the hospital following birth, thus education for them is imperative. However, a review of literature found that there was a lack of evidence to link proper education of healthcare providers to the amount of support offered to mothers (Gavine et al., 2017). Still, several studies have shown that implementing a breastfeeding educational intervention in nursing school increases students' knowledge of breastfeeding benefits and their comfort level in assisting mothers with breastfeeding (Bozzette & Posner, 2012; Davis & Sherrod, 2015; Yang et al., 2018a). Yang et al.'s systematic review showed a variety of specialized breastfeeding education programs increased students' breastfeeding knowledge including web-based education and class instruction (2018a). Dodgson and Tarrant (2007) instituted different types of educational strategies to teach their students breastfeeding content including shadowing an IBCLC four hours during clinical practicum.

Healthcare providers, such as pre-licensure nursing students, typically receive minimal education on the benefits, challenges, and needed skills for assisting with breastfeeding (Davis & Sherrod, 2015). A quasi-experimental study using a historical comparison group was recently conducted at a state university to determine if being taught breastfeeding content and skills by an IBCLC significantly affected a student's attitudes and knowledge about breastfeeding, in comparison to instruction from a non-breastfeeding expert.

Methods

Design

This study design was a quasi-experimental “natural” experiment. A natural experiment occurs when an intervention is not planned but happens as part of routine teaching/practice (Hulley et al., 2013). The treatment was administered by a maternal/newborn, IBCLC-certified professor, who implemented new strategies to cover breastfeeding content and nursing skills. A convenience sample from two cohorts of nursing students in their last semester of nursing school who had taken their maternal/child course the semester before were recruited to participate in the research. The first cohort (i.e. historical comparison group) was taught by a nurse educator without additional lactation content preparation or certification. The second cohort (i.e. treatment group) was taught by the IBCLC nurse educator. The two cohorts/groups were compared using an adapted and abbreviated questionnaire developed from the Australian Breastfeeding Attitude and Knowledge Assessment (Brodribb et al., 2008a) (Appendix D).

Expedited IRB approval was received from Missouri Western State University where the study was conducted. Participation was voluntary and completion of the survey was considered implied consent. Students were encouraged to answer truthfully and no personal identifiers were collected.

Intervention

The historical control group’s breastfeeding education consisted of a single approach using a low-fidelity simulation of a mini breastfeeding class. Each student, using a pillow and baby doll, simulated correct positioning of the baby for nursing tummy to tummy and proper latching of the infant to the breast and discussed important lactation topics of initiating and maintaining milk supply based on milk removal and mastitis (breast infection) treatment. They

also discussed how to make sure the baby was getting enough to eat, diet for mom, normal infant weight loss and regain, and tongue tie.

The treatment group's breastfeeding education consisted of multiple segments and instructional formats (Figure 1). First, the IBCLC instructor presented on critical concepts related to breastfeeding process and lactation physiology process using lecture and videos (e.g. manual expression [Morton, 2006] and infant sucking [BreastfeedingBabies, 2007]). Second, select students were required to present a debate on breastfeeding pros and cons. Pederson (1992) found that having a structured controversy was effective in developing skills to manage controversial issues. The pro-breastfeeding group highlighted the many health, psychological, and convenience benefits of breastfeeding. The con-breastfeeding emphasized that breastfeeding can be difficult and is not always feasible in every situation.

The third and largest part of the education intervention was a small group simulation. Bortolato-Major et al. (2018) found benefits of simulation learning included development of critical thinking, improved attitudes, and integration of theory in practice. Preceding the simulation students were instructed for one hour on how to help a mother correctly latch the infant and answer common breastfeeding concerns. Students learned about common breastfeeding holds including football, cross-cradle, cradle, side-lying, and laid-back position through demonstration using high fidelity maternal and newborn mannequins. They also learned when certain holds may work better than others. Common breastfeeding concerns were also discussed so they would be able to appropriately respond to their patients in clinical practicum. Concerns included perceived low milk supply, exclusive pumping, supplementing while breastfeeding, tongue tie, and mastitis. Students also learned the American Academy of Pediatric recommendations for breastfeeding and the normal weight loss for a breastfeeding infant

(Eidelman & Schanler, 2012). The instructor also shared some of her actual patient case-studies and how she learned to support and assist breastfeeding mothers.

Dependent Variables and Measurement

The Australian Breastfeeding Knowledge and Attitude Questionnaire (ABKAQ) was adapted for use in this study (Brodribb et al., 2008a). Permission was sought and received to use the questionnaire from Dr. Wendy Brodribb, who originally developed the ABKAQ. This instrument has been used in many studies worldwide (Brodribb et al., 2008b; Davis & Sherrod, 2015; Yang et al, 2018b). The original questionnaire consists of 20 attitude items and 36 knowledge items. This study used all 20 attitude questions but shortened the knowledge questions to 22 to reduce subject burden, i.e. for nursing student time constraints. Brodribb et al., (2008a) selected the attitude items from another tool that contained previously validated items (Scott et al., 2003). Knowledge questions were derived from previous studies and qualitative data acquired from Brodribb et al. (2008a). An additional question included in the Brodribb et al. (2008a) questionnaire measured student confidence to assist breastfeeding mothers. For this study an item was added to ask students if they had received adequate education on breastfeeding.

All items used a 5-point Likert scale ranging from strongly disagree to strongly agree. Attitude questions were scored 1 to 5, with 5 being the most positive toward breastfeeding. Knowledge questions were also scored 1 to 5, with 5 being the most correct response i.e. strongly agree scored 5 when the statement was true. The maximum high score for the total scale used was 210 with maximum scores for total attitude being 100 and total knowledge being 110. For this study Cronbach's Alpha was used to assess internal consistency: total score alpha was .77, attitude was .71, and knowledge was .57. Demographic information was collected and

included age, gender, parent status (yes or no), and personal experience in breastfeeding (either self or partner).

Data Analysis

Surveys were collected and data were entered in IBM SPSS Statistics for Windows, Version 23.0 by this researcher and her supervised students. Descriptive statistics and Chi Square tests were used to evaluate significant differences between the two groups (Table 1). Independent T-tests were used to compare total score, total attitude, total knowledge, perception of breastfeeding education received, and confidence in ability to assist a breastfeeding mother between the two cohorts/groups (Table 2). Each attitude and knowledge item also was compared using independent T-test, to see if a subject matter result differed significantly. Significant individual scores are found in Table 2. Significance level was set at $p < .05$.

Results

Sample and Setting

The setting was a Midwestern university 4-year school of nursing. Students were all in their fourth and final semester of nursing school when data were collected. Race and socioeconomic data were not collected. Both groups mostly consisted of white students. The comparison group had a mean age of 26 years old ($SD = 7.06$), while the intervention group had a mean age of 23 years old ($SD = 2.74$). An independent t-test determined the mean ages of the groups were statistically significant ($t = 2.4$; $p = .02$) (Table 1). Both groups were primarily female, but the comparison group had more males than the intervention group (seven to two) and this difference was not significant. Finally, the historical comparison group had significantly more students with breastfeeding experience ($X^2 = 13.06$; $p < .001$).

Attitude Results

The results showed no significant difference between groups on the mean total attitude scores. Only one attitude item was significantly different between the two groups with the treatment group scoring higher, i.e. breastfeeding is incompatible with working ($t = -2.04$; $p = .045$).

Knowledge Results

The results also showed no significant difference between groups on total knowledge scores, although the treatment group had a mean score 3 points higher on total knowledge compared to the comparison group (Table 2). One knowledge item was significantly higher in the treatment group, i.e. do not discard milk during treatment of mastitis ($t = -2.86$; $p = .005$), and one knowledge item was significantly higher in the comparison group; i.e. removal of breast milk is essential to milk supply ($t = 2.03$; $p = .047$).

Confidence and Education Results

Both cohorts of students scored low on their confidence to assist a breastfeeding woman and the difference between the groups was not significant (treatment group $M = 3.54$, $SD = 1.17$; comparison group $M = 3.13$, $SD = 1.17$). However, the students in the treatment group scored significantly higher on having received adequate breastfeeding education (treatment group $M = 3.84$, $SD = .96$; comparison group $M = 3.24$, $SD = 1.28$; $p = .025$).

Discussion

No significant differences were found between the two groups' total scores, attitude scores and knowledge scores. Also, no significant difference was found between the two groups' confidence in ability to provide breastfeeding support. Differences by group were noted on three

individual items. A difference was also noted in the treatment group's responses to the adequate breastfeeding education item.

The total attitude score between the two groups was not significant. However, one of the 22 attitude items was significantly different between the two groups; the treatment group scored higher on the item "breastfeeding is incompatible with employment." This could be in part due to the intervention group learning how mothers can balance work and breastfeeding as part of the simulation (see again Figure 1). Other studies also have found breastfeeding education interventions to improve knowledge may not significantly change attitudes towards breastfeeding (Ben Natan et al., 2018). Most healthcare professionals have positive attitudes toward breastfeeding and personal factors such as prior experience with breastfeeding is related to their attitude (Brodribb et al., 2008a; 2008b)

Knowledge scores often are improved with a breastfeeding education intervention (Yang et al., 2018a). However, in this study the groups did not show differences in total knowledge scores. This could be due to the groups' baseline difference in personal experience with breastfeeding. The historical cohort had more participants that had either breastfed or had a partner who breastfed. There were two individual knowledge items where a significant difference was found. The historical comparison group scored significantly higher on the item related to removal of milk from the breast is essential to maintaining milk supply. This could be due to the historical group having significantly more students with breastfeeding experience. Brodribb et al. (2008b) found that providers with longer breastfeeding experience had higher knowledge scores and more positive attitudes toward breastfeeding. The treatment group scored higher on the item to not discard milk during treatment of mastitis. This could be attributed to the

IBCLC instruction explaining that the infection was in the breast tissue and not in the milk itself, so that discarding milk would not be useful and in fact, detrimental.

Although the total knowledge scores were not significantly different, it is noted that the treatment group was more positive toward the breastfeeding education they received. This could be due to having learned from an expert through the multifaceted approach. The students in the treatment cohort were also able to ask questions about common breastfeeding myths, which the IBCLC could answer and explain, e.g. frequency of low milk supply and breastfeeding on demand. Since not all students will have a faculty member with the certification, it would be appropriate to have a lactation consultant guest lecturer to ensure students are receiving practical and current evidence-based education.

Implications for Teaching and Research

Although there were few significant differences between the groups based in the teaching methods used, there are implications for teaching. For example, based on the findings of this study regarding confidence in ability to care for breastfeeding mothers, the authors recommend providing breastfeeding education in different settings and using different strategies. One strategy is to provide an instructional experience with an IBCLC. This can be done through clinical, simulation, or didactic teaching. Since the two groups in this study were significantly different in their breastfeeding experience further research is needed to determine the effectiveness of an IBCLC providing instruction to students.

Limitations

This was a quasi-experimental study which lacks strength to make causality inferences (Hulley et al., 2013). Internal validity of quasi-experimental designs is most at risk (Hulley et al., 2013). The two groups were not equivalent by virtue of personal characteristics and lack of sampling criteria for controlling potential confounding factors. The comparison group members

were older with more students who were parents and had experience with breastfeeding. This could have been a factor in the lack of significant differences. Only one university was studied and the student sample was primarily white and female, thereby reducing generalizability of the findings. Finally, the ABKAQ was adapted for this study and the Cronbach's Alpha for knowledge was reduced from the original version. So internal consistency was jeopardized.

Conclusion

Nurses are trusted healthcare providers who are in a key position to educate and support breastfeeding mothers. However, many nurses graduate from nursing school not feeling confident in their ability to assist breastfeeding mothers (Davis & Sherrod, 2015). A primary reason for their lack of confidence is due to the limited amount of breastfeeding education they receive in nursing school. A multifaceted educational approach based in principles of interactive learning and simulation of clinical assessment and teaching might give students more confidence in the breastfeeding education they receive. Additional research is needed to determine which teaching methods and styles provide the most benefit to a student's learning and confidence.

References

- Ben Natan, M., Haikin, T., & Wiesel, R. (2018). Breastfeeding knowledge, attitudes, intentions, and perception of support from educational institutions among nursing students and students from other faculties: A descriptive cross-sectional study. *Nurse Education Today*, 68, 66-70. doi:10.1016/j.nedt.2018.05.026
- Bortolato-Major, C., Perez Arhur, J., Taís Mattei daSilva, Â., de Fátima Mantovani, M., Cestari Felix, J. V., & Boostel, R. (2018). Contributions of the simulation for undergraduate nursing students. *Journal of Nursing UFPE / Revista de Enfermagem UFPE*, 12(6), 1751-1762. doi:10.5205/1981-8963-v12i6a230633p1751-1762-2018
- Bozzette, M., & Posner, T. (2013). Increasing student nurses' knowledge of breastfeeding in baccalaureate education. *Nurse Education in Practice*, 13(3), 228-233. doi:10.1016/j.nepr.2012.08.013
- BreastfeedingBabies (2007, December 9). *Latch on* [Video]. You Tube. <https://www.youtube.com/watch?v=Zln0LTkejIs>
- Brodribb, W., Fallon, A., Jackson, C., & Hegney, D. (2008). Breastfeeding and Australian GP registrars -- their knowledge and attitudes. *Journal of Human Lactation*, 24(4), 422-430.
- Brodribb, W., Fallon, A., Jackson, C., & Hegney, D. (2008). The relationship between personal breastfeeding experience and the breastfeeding attitudes, knowledge, confidence and effectiveness of Australian GP registrars. *Maternal & Child Nutrition*, 4(4), 264-274.
- Davis, A., & Sherrod, R. A. (2015) Effects of an educational intervention on baccalaureate nursing students' knowledge and attitude in providing breastfeeding support to mothers. *International Journal of Childbirth Education*, 30(4), 8-12.

- Dodgson, J. E. & Tarrant, M. (2007). Outcomes of a breastfeeding educational intervention for baccalaureate nursing students. *Nurse Education Today*, 27(8), 856-867.
doi:10.1016/j.nedt.2006.12.001
- Eidelman, A. K., & Schanler, R. J. (2012). Breastfeeding and the use of human milk. *Pediatrics*, 129(3), 598–601. doi:10.1542/peds.2011-3552
- Folker-Maglaya, C., Pylman, M. E., Couch, K. A., Spatz, D. L. & Marzalik, P. R. (2018). Continuing education. Implementing a breastfeeding toolkit for nursing education. *Journal of Perinatal & Neonatal Nursing*, 32(2), 156-163.
doi:10.1097/JPN.0000000000000330
- Gavine, A., MacGillivray, S., Renfrew, M. J., Siebelt, L., Haggi, H., & McFadden, A. (2017). Education and training of healthcare staff in the knowledge, attitudes and skills needed to work effectively with breastfeeding women: A systematic review. *International Breastfeeding Journal*, 12(6), 1-10. doi:10.1186/s13006-016-0097-2
- Hulley, S. B., Cummings, S. R., Browner, W. S., Grady, D. G., & Newman, T. B. (2013). *Designing clinical research*, (4th ed.). Lippincott William and Wilkins.
- James, L., Sweet, L., & Donnellan-Fernandez, R. (2017). Breastfeeding initiation and support: A literature review of what women value and the impact of early discharge. *Women & Birth*, 30(2), 87-99. doi:10.1016/j.wombi.2016.09.013
- McFadden, A., Gavine, A., Renfrew, M. J., Wade, A., Buchanan, P., Taylor, J. L., Veitch, E., Rennie, A. M., Crowther, S. A., Neiman, S., & MacGillivray, S. (2017). Support for healthy breastfeeding mothers with healthy term babies. *The Cochrane Database of Systematic Reviews*. <https://doi.org/10.1002/14651858.CD001141.pub5>

Morton, J. (2006). *Hand expression of breastmilk* [Video]. Stanford Medicine.

<https://med.stanford.edu/newborns/professional-education/breastfeeding/hand-expressing-milk.html>

Nelson, A. M. (2007). Maternal-newborn nurses' experiences of inconsistent professional breastfeeding support. *Journal of Advanced Nursing*, 60, 29-38.

Pederson, C. (1992). Effects of structured controversy on students' perceptions of their skills in discussing controversial issues. *Journal of Nursing Education*, 31(3), 101-106.

Scott, J., McInnes, R., Tappin, D., & Guthrie, E. (2003). Breastfeeding opinions, knowledge, management practices and training of Scottish midwives. *Report for the Scottish Executive Health Department Chief Scientist Office*.

Spatz, D. L. & Pugh, L. C. (2001). The integration of the use of human milk and breastfeeding in baccalaureate nursing curricula. *Nursing Outlook*, 55(5), 257-263.

U.S. Department of Health and Human Services. (2011). *The Surgeon General's call to action to support breastfeeding*. Washington, DC: U.S. Department of Health and Human Services, Office of the Surgeon General.

Yang, S.-F., Salamonson, Y., Burns, E., & Schmied, V. (2018). Breastfeeding knowledge and attitudes of health professional students: A systematic review. *International Breastfeeding Journal*, 13, 1. doi:10.1186/s13006-018-0153-1

Yang, S.-F., Schmied, V., Burns, E., Brodribb, W., & Salamonson, Y. (2018). Validation of the Chinese version of the Australian Breastfeeding Attitude Questionnaire. *Journal of Human Lactation*, 34(4), 674-681. doi:10.1177/0890334418761567

Table 1*Demographic Characteristics of Participants (N = 79)*

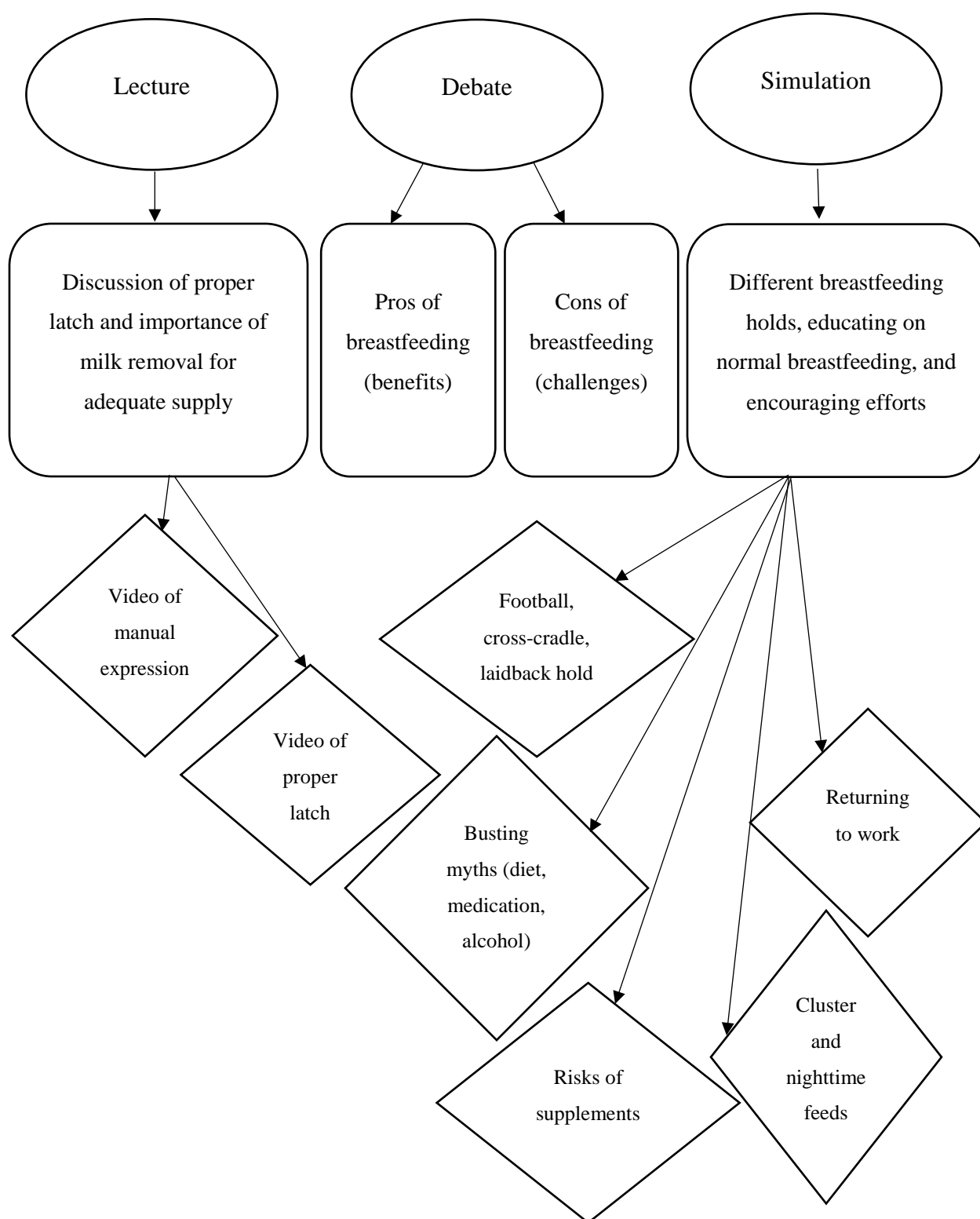
Characteristic	Control Group <i>n</i> (%)	Intervention Group <i>n</i> (%)	Total <i>n</i> (%)
Gender			
Male	7 (18)	2 (5)	9 (11)
Female	32 (82)	38 (95)	70 (89)
Breastfeeding experience			
Yes	26 (67)	9 (25)	35 (47)
No	13 (33)	27 (75)	40 (53)

Note. 4 participants from the intervention group did not respond to the breastfeeding experience question.

Table 2*Participants' Attitude and Knowledge Scores and Differences*

Variable	Control	Intervention	<i>t</i>	95% CI for <i>t</i>	<i>p</i>
	Group	Group			
	<i>M (SD)</i>	<i>M (SD)</i>			
Total Score	143.5 (10.93)	144.0 (12.67)	-.19	-5.94, 4.93	.85
Total Attitude	71.16 (6.25)	69.58 (8.06)	.97	-1.69, 4.85	.34
Combine work/breastfeeding	4.21 (.83)	4.56 (.72)	-2.04	-.71, -.01	.045
Total Knowledge	72.36 (6.14)	74.05 (6.61)	-1.16	-4.61, 1.22	.25
Importance of milk removal	4.46 (.55)	4.12 (.86)	2.03	.001, .66	.046
Not discard milk with mastitis	2.49 (1.07)	3.21 (1.14)	-2.86	-1.23, -.22	.005
Confidence in ability to provide breastfeeding support	3.13 (1.17)	3.54 (.17)	-1.53	-.95, .12	.13
Adequacy of breastfeeding education in nursing school	3.24 (1.28)	3.84 (.95)	-2.3	-1.12, -.08	.025

Note. Higher score denotes attitude more positive toward breastfeeding, knowledge item more accurately answered, higher confidence in ability, and education being more adequate.

Figure 1*Multifaceted Breastfeeding Education Intervention*

Chapter 3

A Proposed Curriculum for Hospital-Based Breastfeeding Support Groups

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Abstract

Purpose: The purpose of this project was to develop a comprehensive, flexible curriculum that lactation consultants and breastfeeding educators can use to guide support group discussions.

Introduction: Breastfeeding support groups can be effective in providing mothers with the education and support needed for success in their breastfeeding efforts.

Literature Review: A literature review was completed to discern components of curricula currently being used in breastfeeding support groups and topics that should be addressed in a breastfeeding support group.

Theoretical Framework: Adult learning theory and maternal role attainment theory provided the theoretical foundation used to guide and support this project.

Application to Practice: Suggested topics for inclusion entailed normal breastfeeding, lifestyle changes, and special circumstances.

Keywords: breastfeeding, social support, breastfeeding support groups, curriculum

Many mothers in the United States struggle to achieve national recommendations for exclusivity and duration of breastfeeding (Centers for Disease Control and Prevention [CDC], 2018). Education, encouragement, and support are needed for mothers to successfully breastfeed. Mothers may attend breastfeeding support groups of various types following the birth of their babies to gain education and support. Hospital-based support groups are becoming more commonplace as more hospitals work towards or achieve Baby-Friendly USA, Inc. designation. The last step of the Baby Friendly *Ten Steps* focuses on helping mothers after hospital discharge and calls for hospitals to provide a breastfeeding support group or to direct mothers to local support groups (Baby-Friendly USA, 2012).

Garner et al. (2016) stated that healthcare professionals have identified discontinuity of breastfeeding care as a major contributor to unsuccessful breastfeeding. However, many hospital-based support groups do not use a curriculum with an evidence-basis, perhaps further contributing to discontinuity of breastfeeding care.

This curriculum development project was based in the results from a review of research literature and other professional lactation resources combined with the experiences of a board-certified lactation consultant/La Leche League Leader. As such, empirical evidence and professional expertise were merged to create the proposed curriculum.

Methods

A literature review was completed by searching for the key phrase “breastfeeding support group” in CINAHL, PubMed, and Google Scholar. Only papers written in English were included in this review. All papers were evaluated to determine if there was content on curriculum, education, or recommendations for facilitating successful breastfeeding support groups. In addition, all sources were reviewed and evaluated for the level of evidence used according to a

standard hierarchy of evidence (Melnyk, 2016; Melnyk & Fineout-Overholt, 2015). A total of 36 papers were found and 25 papers were excluded for not meeting criteria.

Results

There is currently sparse literature that describes possible topics or curricular content for breastfeeding support groups. Papers found to have content related to recommendations and potential content of breastfeeding support groups were categorized into either general suggestions, specific strategies and approaches, or challenges. The results were placed in a table to describe the source studies or clinical papers; evidence grades were also documented. The reviewed literature contained one level 4, one level five, five level six, and four level seven published clinical papers and studies (Table 3).

General Suggestions. One suggestion from Green (2012) for support group “must-dos” was that groups be informal but have organized content. Having a leader similar to the mothers and from the community can also help mothers feel more at ease and increase attendance (Green, 2012). A Women Infants and Children (WIC) peer counselor is a good example of such a leader. Another suggestion was that the support groups should be holistic and community based (Anderson & Grant, 2001). A metasynthesis of qualitative research about women’s perceptions of breastfeeding support found a “facilitative style” is preferred by mothers (Schmied et al., 2011). This style can be achieved by providing realistic, accurate, and detailed information in an encouraging, interactive, positive and non-pressuring manner. Support group leaders should encourage and facilitate discussion between group members (Schmied et al., 2011).

Leahy-Warren et al. (2017) and Fox et al. (2015) found that many women reported not knowing what normal breastfeeding consisted of. Nolan et al. (2015) found that women who attended support groups in Ireland appreciated having access to baby scales to weigh their

infants. Women who attend support groups appreciated learning from other women and sharing their breastfeeding stories (Leahy-Warren et al., 2017).

It is also important that women understand that the support group will be a safe space where they will not be judged for their feeding choices. Hunt and Thomson (2017) found that fear of judgement often deterred women from seeking breastfeeding support. Mothers should not feel pressured to exclusively breastfeed or breastfeed for a certain amount of time, but rather supported and commended for their breastfeeding efforts.

Specific strategies and approaches. The Solihull Approach is a model developed to guide support groups and its aim is to increase emotional wellbeing (Tan et al., 2017). The Solihull Approach consists of three concepts: containment, reciprocity, and behavior change. This approach was used in several baby cafés in the United Kingdom to share information on what to expect (cluster feeding), technical assistance (positioning and latching), and medical diagnoses (tongue ties). After attending a support group using the Solihull approach, the mothers reported having increased self-confidence.

The Bosom Buddy Project was founded in the United States (Friesen et al., 2015). This support group was specifically designed to help African-American breastfeeding mothers. It is important that breastfeeding support groups assist and work with multiple cultures to meet the needs of culturally sensitive education and support.

Challenges of breastfeeding. Mohrbacher and Knorr (2012) described frequent obstacles and challenges that lead to early cessation of breastfeeding including lack of knowledge, social norms being based on bottle-feeding, poor social support, embarrassment over breastfeeding in public, lactation problems, employment and childcare, and problems related to health care service; these authors concluded that support groups could address these challenges.

Challenges of attending a support group. Some challenges to attending support groups include geographic distances, maternal disabilities, and special individual circumstances that may not apply to other mothers in the group. Gribble (2001) stated that these challenges can be overcome by offering an online support group and chat. Special-circumstance mothers, such as those who are breastfeeding an adoptive baby, can receive support from mothers in similar circumstances from all over the world, thereby reducing “geographical isolation, lack of appropriate information and support and a sense of feeling alone” (Gribble, 2001, p. 13).

Theoretical Frameworks

Although it is important that support group curricula are evidence-based, it is also important to use educational and substantive theory to guide curricular development and instructional methods. The following two theories were used as a foundation to create the curriculum.

Adult Learning Theory

The main principles of andragogy include a learner’s need to know, self-concept of the learner, prior experience of the learner, readiness to learn, orientation to learning, and motivation to learn (Knowles et al., 2005). Breastfeeding mothers demonstrate their readiness and motivation by attending breastfeeding support groups. However, it is important that the support group leader evaluates the mother’s prior experience to ascertain the amount of instruction needed.

Maternal Role Attainment

Maternal Role Attainment Theory (MRA) asserts that women go through a period of transition after birth in which they acquire their motherly attributes (Mercer, 1985). One important attribute associated with MRA is “binding in” or the mother forming an attachment to her child (Mercer, 2004). Healthcare professionals, including lactation specialists can promote

bonding (Husmillo, 2013) through active listening, reassuring mothers, and individualized information. Another important contributor to maternal confidence and role acquisition is knowing how to care for and calm her infant. Helping a mother be successful can increase her self-efficacy and strengthen the maternal-infant bond.

Suggestions for Clinical Practice

Important topics to incorporate in the breastfeeding support curriculum included normal breastfeeding, lifestyle changes, and special circumstances. Topics can be combined or solo and presented in the order that is most conducive to the group in a culturally sensitive manner.

Normal Breastfeeding

Nighttime breastfeeding. Some mothers think that bottle-feeding at night will allow them to get more rest. However, this belief has not been supported by evidence; in fact, some research indicates the opposite (Doan et al., 2014). It is important mothers are taught that skipping nighttime feedings can lead to decreased milk supply and mastitis. Additional solutions to sleep-deprivation should be offered to mothers including sleeping when baby sleeps and taking naps during the day.

Cluster feeding. The demands of an infant's feeding schedule in the early postnatal period can lead a mother to feel overwhelmed and frustrated (Spencer et al., 2014). Many mothers who experience cluster feeding, i.e. consecutive feedings with short breaks in-between, erroneously attribute it to decreased milk supply. Often mothers will supplement with commercial formula during this time, thereby negatively impacting breastfeeding by decreasing milk supply and the infant potentially developing a preference for bottles. Education and reassurance are needed to help mothers understand cluster feeding is normal and breastfeeding-on-demand will ensure adequate milk supply. Tips can also be given to calm a fussy baby who

wants to stay latched to the breast. Baby-wearing is a great alternative that allows mother and infant to remain in close contact while allowing the mother to complete tasks and responsibilities (Little et al., 2018). Another suggestion is for the mother's partner, family members or friends to care for the infant to allow mother time for herself. Short breaks can help mothers emotionally to continue breastfeeding despite the cluster feeding.

Breastfeeding in public. Breastfeeding in public or even around friends and family is a common concern for mothers. Mothers may feel awkward and/or worried that it is not acceptable to others (McKenzie et al., 2018). It is important for mothers to know that they have the legal right to breastfeed in public throughout the US (National Conference of State Legislatures, 2018). McKenzie et al. (2018) identified several ways for an embarrassed mother to cope with breastfeeding around others. A simple coping strategy was to leave and breastfeed in another room. Many public places such as churches, zoos, amusement parks, athletic stadiums, and airports provide rooms designated for breastfeeding mothers. A breastfeeding cover can be used if the mother and infant are comfortable using such a device. A breastfeeding support group is a great opportunity for mothers to become more comfortable breastfeeding in front of others

Lifestyle Changes

Often mothers are misinformed and think they need to modify their diet while breastfeeding. Although a healthy well-balanced diet is recommended, mothers usually do not need to exclude foods while breastfeeding. Louis-Jacques and Stuebe (2018) stated that one common cause of premature cessation of breastfeeding is mothers being misinformed about the safety of medication use while breastfeeding. It is important mothers feel comfortable in sharing concerns they have so that a breastfeeding expert can provide evidenced-based information.

Returning to work is a common breastfeeding obstacle (Sayres & Visentin, 2018). Mothers need to be informed of current legislation, so they are aware of their rights. Support group leaders need to individualize a plan with mothers to overcome workplace barriers (LEAARC, 2019; Biagioli, 2003). Mothers need to be prepared to express and store their milk. A common challenge for working mothers is finding a balance between breastfeeding and bottle-feeding their own milk. It is important that the caretaker of the baby be educated on paced bottle-feeding to reduce stress and demand on the mother (Jordan, 1998). Mothers should be reassured that while working and breastfeeding may be challenging, it is possible and worth the additional effort to provide her infant and herself with the benefits of breastfeeding.

Weaning

Several factors can lead to the premature cessation of breastfeeding including cultural pressure, pressure from partner, return of menses, and a new pregnancy (LEAARC, 2019). Ideally, weaning would be based on the needs of the child. The support group leader needs to understand why the mother wants to wean and address her concerns to determine if breastfeeding can continue.

Because of the current American Academy of Pediatrics Recommendation most mothers only plan to breastfeed for six months to a year. It is important to explain that in other parts of the world it is normal for children to breastfeed between two and four years. Hence if the mother and child are not ready to wean at one year the mother should be supported to continue breastfeeding. Sometimes mothers cite weaning was initiated by the infant (Cunniff & Spatz, 2017). However, when the mother desires to begin the weaning process gradual weaning methods should be taught and encouraged. Gradual weaning methods will decrease her risk of engorgement and mastitis and will also be better for the emotional well-being of the child (Abu Hamad, & Sammour, 2013). One idea for gradual weaning is “don’t offer don’t refuse” (Cunniff

& Spatz, 2017, p. 89). This allows feedings to gradually decrease in number. If this strategy is not working or if the mother wants to be more proactive she can institute gentle weaning methods. The main components of gentle weaning are distraction, substitution, and delaying (Bengson, 1999). Another idea for an older child is to have a weaning party or give the child a special gift for his accomplishment, if they are close to being completely weaned and just need a little motivation.

When a mother is feeling unsatisfied with her breastfeeding relationship, partial weaning can be an answer. Some mothers wean during the day but will still breastfeed if the child wakes at night. Once the child is over a year, the mother has the flexibility to adapt the breastfeeding relationship to meet her own and her child's needs.

Special Considerations

For this topic, there is flexibility to include any subject where the breastfeeding support group participants need more information. Topics that are commonly discussed include teething, summer traveling, and holiday weaning.

Teething. Teething is a difficult time for any infant and his parents. It is important that the mother understand that teeth do not need to signal the end of breastfeeding. If biting does occur, it is usually temporary and there are strategies to help decrease the likelihood of discomfort (Bonyata, 2018a). One strategy is for the mothers to be vigilant during breastfeeding. Often the infant will bite after a feeding when they are no longer hungry. If the mother can discern when the infant is full and unlatch him/her, then there will be no opportunity for the infant to bite. If the infant does bite, remove the infant from the breast and offer a teething ring or something the child can bite on such as a frozen washcloth (Bonyata, 2018b). Some babies will bite if distracted so do not force an infant to breastfeed. If the infant bites down and does not

let go, the mother can use her finger to break the latch or pull the infant close to the breast.

Pulling the infant close to breast can obstruct breathing through their nose and they will open their mouth. The group leader may ask mothers of children who have gone through teething to share what worked well for them.

Traveling. Traveling with a breastfeeding child can add some unique challenges that the mother may be unaware of. If the mother is flying, it is important she check with the airline about transporting expressed milk. It is recommended the infant be breastfed during takeoff and landing to help relieve the infant's ear pressure (Hartung, 2018). Breastfeeding on the airplane and in the airport may be a concern for the mother and public breastfeeding should be reviewed. If the mother is driving, breastfeeding should be attempted every time the car stops and the family should anticipate the need for more frequent stops. If the infant breastfeeds and takes a bottle well, the mother can pump and offer the infant a bottle, so an additional stop is not needed. It usually works better for the mother to sit next to the infant in the car, so the infant is reassured, and their needs can be met quickly. Since traveling can affect the infant's schedule it is important that mother breastfeed on demand to maintain her milk supply.

Conclusion

New support group leaders can use the suggested topics to ensure participants receive essential information regarding normal breastfeeding, lifestyle considerations, and special circumstances as described in this paper. It is hoped additional breastfeeding experts will add to these recommended topics and share their experiences. Future research on breastfeeding support groups is needed to identify specific benefits of attendance and ways to encourage more mothers to attend. Research on efficiency and effectiveness of breastfeeding support groups via telehealth is also needed. Due to the recent COVID-19 pandemic, breastfeeding support groups have

adapted to social distancing guidelines. Many support groups already have an online presence, e.g. Facebook group, where mothers can ask questions and get support from each other 24/7. However, in some cases, and in order to meet synchronously and virtually, some groups have started using teleconferencing platforms. Additional research should be completed to explore what additional changes are needed for an online support group curriculum.

References

- Abu Hamad, B. A., & Sammour, H. K. (2013). Weaning practices of mothers attending United Nations Relief and Works Agency Health Centres in the Gaza Governorates. *Journal of Advanced Nursing*, 69(4), 773–781. doi:10.1111/j.1365-2648.2012.06057.x
- Anderson T., & Grant M. (2001). The art of community-based breastfeeding support: The Blandford Breastfeeding Support Group, incorporating the “Blandford Bosom Buddies.” *MIDIRS Midwifery Digest*, 11(1), S20-2.
- Baby-Friendly USA. (2012). *10 steps and international code*.
<https://www.babyfriendlyusa.org/about-us/10-steps-and-international-code>
- Bengson, D. (1999). *How weaning happens*. La Leche League International.
- Biagioli F. (2003). Returning to work while breastfeeding. *American Family Physician*, 68(11), 2201–2127.
- Bonyata, K. (2018). *When baby bites*. <https://kellymom.com/ages/older-infant/biting/>
- Bonyata, K. (2018). *Teething*. <https://kellymom.com/ages/older-infant/teething/>
- Centers for Disease Control and Prevention. (2018). Results: Breastfeeding rates. *National Immunization Survey (NIS). Breastfeeding among U.S. children born 2009–2016, CDC National Immunization Survey*.
https://www.cdc.gov/breastfeeding/data/nis_data/results.html
- Cunniff, A., & Spatz, D. (2017). Mother’s weaning practices when infants breastfeed for more than one year. *MCN: The American Journal of Maternal Child Nursing*. 42(2), 88-94.
 doi:10.1097/NMC.0000000000000310

- Doan, T., Gay, C. L., Kennedy, H. P., Newman, J., & Lee, K. A. (2014). Nighttime breastfeeding behavior is associated with more nocturnal sleep among first-time mothers at one month postpartum. *Journal of Clinical Sleep Medicine*, 10(3), 313–319. doi:10.5664/jcsm.3538
- Fox, R., McMullen, S., & Newburn, M. (2015). UK women's experiences of breastfeeding and additional breastfeeding support: A qualitative study of Baby Café services. *BMC Pregnancy & Childbirth*, 15(1), 147. doi:10.1186/s12884-015-0581-5
- Friesen, C. A., Hormuth, L. J., & Curtis, T. J. (2015). The Bosom Buddy Project. *Journal of Human Lactation*, 31(4), 587–591. doi:10.1177/0890334415581617
- Garner, C. D., Ratcliff, S. L., Thornburg, L. L., Wethington, E., Howard, C. R., & Rasmussen, K. M. (2016). Discontinuity of breastfeeding care: “There’s no captain of the ship.” *Breastfeeding Medicine*, 11, 32–39. doi:10.1089/bfm.2015.0142
- Green, K. (2012). 10 must-dos for successful breastfeeding support groups. *Breastfeeding Medicine*, 7, 346-347.
- Gribble K. D. (2001). Mother-to-mother support for women breastfeeding in unusual circumstances: A new method for an old model. *Breastfeeding Review*, 9(3), 13–19.
- Hartung A. (2018). *Traveling with the breastfed baby*.
<http://breastfeedingcenterofpittsburgh.com/bf101/traveling-with-a-breastfed-baby/>
- Hunt, L., & Thomson, G. (2017). Pressure and judgement within a dichotomous landscape of infant feeding: A grounded theory study to explore why breastfeeding women do not access peer support provision. *Maternal & Child Nutrition*, 13(2), Article e12279. doi:10.1111/mcn.12279
- Husmillo, M. (2013). Maternal role attainment theory. *International Journal of Childbirth Education*, 28(2), 46–48.

- Jordan S. (1998). The controlled or paced bottle feeding. *Mother Baby Journal*, 3(2), 21–24.
- Knowles, M. S., Holton, E. F., Swanson, R. A. (2005). *The adult learner: The definitive classic in adult education and human resource development*. Elsevier.
- Lactation Education Accreditation and Approval Review Committee (2019). *Core curriculum for interdisciplinary lactation care* (S. H. Campbell, J. Lauwers, R. Mannel, & B. Spencer, Eds.). Jones and Bartlett Learning.
- Leahy-Warren, P., Creedon, M., O, M. A., & Mulcahy, H. (2017). Normalising breastfeeding within a formula feeding culture: An Irish qualitative study. *Women & Birth*, 30(2), e103–e110. doi:10.1016/j.wombi.2016.10.002
- Little, E. E., Carver, L. J., & Legare, C. H. (2018). Mother–infant physical contact predicts responsive feeding among U.S. breastfeeding mothers. *Nutrients*, 10(9), 1251. doi:10.3390/nu10091251
- Louis-Jacques, A., & Stuebe. A. (2018). Long-term maternal benefits of breastfeeding. *Contemporary OB/GYN*, 63(7), 26–29.
- McKenzie, S. A., Rasmussen, K. M., & Garner, C. D. (2018). Experiences and perspectives about breastfeeding in “Public”: A qualitative exploration among normal-weight and obese mothers. *Journal of Human Lactation*, 34(4), 760–767. doi:10.1177/0890334417751881
- Melnyk, B. M. (2016). Level of evidence plus critical appraisal of its quality yields confidence to implement evidence-based practice changes. *Worldviews on Evidence-Based Nursing*, 13(5), 337-339. doi:10.1111/wvn.12181
- Melnyk, B. M., & Fineout-Overholt, E. (2015). *Evidence-based practice in nursing & healthcare. A guide to best practice*. Wolters Kluwer.

- Mercer, R. T. (1985). The process of maternal role attainment over the first year. *Nursing Research*, 34(4), 198–204.
- Mercer, R. T. (2004). Becoming a mother versus maternal role attainment. *Journal of Nursing Scholarship*, 36(3), 226–232. doi:10.1111/j.1547-5069.2004.04042.x
- Mohrbacher, N., & Knorr, S. (2012). Breastfeeding duration and mother-to-mother support. *Midwifery Today*, 101, 44–46.
- National Conference of State Legislatures (2018). *Breastfeeding state laws*.
<http://www.ncsl.org/research/health/breastfeeding-state-laws.aspx>
- Nolan, A., Kennedy, S., O'Malley, A., Kirwan, M., Hughes, A., Barry, A., Goodwin, V.,
 Cunningham, A. M., Coyne, H., & Nugent, L. (2015). Mothers' voices: Results of a
 survey of public health nurse-led breastfeeding support groups. *Primary Health Care*,
 25(7), 26–31. doi:10.7748/phc.25.7.26.e998
- Sayres, S., & Visentin, L. (2018). Breastfeeding: Uncovering barriers and offering solutions.
Current Opinion in Pediatrics, 30(4), 591–596. doi:10.1097/MOP.0000000000000647
- Schmied, V., Beake, S., Sheehan, A., McCourt, C., & Dykes, F. (2011). Women's perceptions
 and experiences of breastfeeding support: A metasynthesis. *Birth: Issues in Perinatal
 Care*, 38(1), 49–60. doi:10.1111/j.1523-536X.2010.00446.x
- Spencer, R., Greatrex-White, S., & Fraser, D. M. (2014). 'I was meant to be able to do this': A
 phenomenological study of women's experiences of breastfeeding. *Evidence Based
 Midwifery*, 12(3), 83–88.
- Tan, M., Rheeston, M., & Douglas, H. (2017). Using the Solihull Approach in breastfeeding
 support groups: Maternal perceptions. *British Journal of Midwifery*, 25(12), 765–773.
 doi:10.12968/bjom.2017.25.12.765

Table 3*Matrix of Literature Review*

Author (year)	Design/ Level of Evidence	Sample/ Setting	Findings/ Recommendations	Contribution to curriculum or characteristics of support groups
Anderson & Grant (2001)	Nonempirical/ Level 7	N/A	Support groups should be holistic and community based.	Important to include multiple issues in dealing with breastfeeding (i.e. returning to work).
Fox et al. (2015)	Qualitative/ Level 6	51 Interviews and focus group	Participants appreciated professional and lay support. Mothers had been given unrealistic expectations.	Important to be realistic with mothers.
Friesen et al., 2015	Nonempirical/ Level 7	N/A	Assist and work with multiple cultures.	Be culturally aware and inclusive of all cultures.
Green (2012)	Nonempirical/ Level 7	N/A	Support groups should be informal but organized. Have a leader from the community.	Informal but organized content. Suggestion to have a WIC peer counselor attend and help facilitate meetings.
Gribble, 2001	Qualitative/ Level 6	37/ Australia/ email survey	Internet based support groups can be used to help mothers with special circumstances.	Breastfeeding support groups can have an online option as well which can be specialized.
Hunt & Thomson (2017)	Qualitative/ Level 6	33/ England- Interviews and focus groups	Mothers are concerned it is all or nothing with breastfeeding and do not seek support due to fear of judgement.	No pressure or judgement, all mothers should be welcomed no matter how they are feeding their infant.
Leahy-Warren et al. (2017)	Qualitative/ Level 6	7/ Ireland/ Interviews	Support groups aided in normalizing breastfeeding, giving needed support, and helping mothers build confidence. Mothers credited their breastfeeding success to attending the support group.	Important to be realistic with mothers.

Table 3 (*Continued*)

Author (year)	Design/ Level of Evidence	Sample/ Setting	Findings/ Recommendations	Contribution to curriculum or characteristics of support groups
Mohrbacher & Knorr (2012)	Nonempirical/ Level 7	N/A	N/A	Need to address challenges of breastfeeding such as including bottle feeding, breastfeeding in public, returning to work, and additional issues with lactation.
Nolan et al. (2015)	Cohort study/ Level 4	96/ Ireland- Breastfeeding support groups	Mothers appreciated refreshments. Times and location of support groups need to work for mothers.	Have scales available to weigh babies. Have a more formal structure. Some mothers asked for information on weaning.
Schmied et al. (2011)	Metasynthesis of qualitative and quantitative studies/ Level 5	31 total studies reviewed/ 28 qualitative, 3 mixed methods (included breastfeeding rates)	Leader should use a facilitative approach.	Leader needs to encourage participation and discussion. Provide realistic, accurate, and detailed information in an encouraging, interactive, positive and non-pressuring manner.
(Tan et al., 2017)	Qualitative/ Level 6	9/ United Kingdom- specific support group	Mothers felt isolated in a predominantly bottle-feeding culture.	What to expect (cluster feeding), technical assistance (positioning and latching), and medical diagnoses (tongue ties).

Chapter 4

The Experiences of Mothers who Attend Breastfeeding Support Groups

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Abstract

Background: Education and support can be critical for breastfeeding mothers' success.

Breastfeeding support groups provide needed education and support. Mothers that attend support groups report benefits such as gaining knowledge, confidence, and informational and emotional support. However, currently there is a gap in descriptive research regarding breastfeeding support groups in the U.S.

Research Aims: To: (1) Describe the experiences of mothers who attend breastfeeding support groups. (2) Determine reasons why mothers attend breastfeeding support groups. (3) Identify benefits mothers and infants receive by attending breastfeeding support groups.

Methods: A qualitative descriptive method was used. Recruitment took place in seven different support groups in the Midwestern U.S. First time mothers who had attended at least three breastfeeding support groups ($N = 20$) participated in individual in-person semi-structured interviews. Data analysis was completed using inductive content analysis through condensing of narratives and abstracting. Confirmability, credibility, dependability, and transferability were used to ensure methodological rigor.

Results: Five main themes were identified in this study: (1) mothers felt comfortable speaking openly without being judged, (2) mothers' mental health was improved by getting out and talking with mothers having similar experiences, (3) mothers needed assistance preparing to return to work, (4) attendance was driven by the need for help but maintained by comradery, and (5) group support increased mothers' confidence to continue breastfeeding longer.

Conclusions: Breastfeeding support groups provided mothers expert help, breastfeeding information, practical assistance, and comradery. Support groups enhanced maternal confidence and influenced breastfeeding duration.

Keywords: breastfeeding, breastfeeding support, social support, qualitative descriptive design

Background

Mothers inherently want to do what is best for their babies. Because of the many known benefits of breastfeeding for mothers (Binns et al., 2016) and infants (Binns et al., 2016; Klimeck Brauner Pissolato et al., 2015; Vanderkruik et al., 2015) most mothers in the U.S. choose to initiate breastfeeding (i.e. ~80%) (Anstey et al., 2017). However, only 20% of mothers achieve the American Academy of Pediatrics (AAP) recommendations of exclusive breastfeeding until 6 months and only 30% of mothers achieve the recommendation for continued breastfeeding to at least one year (Eidelman & Schanler, 2012; Anstey et al., 2017).

A major contributor to mothers prematurely weaning their infants is lack of support and knowledge of how to manage breastfeeding challenges (Anstey et al., 2018; Bird, 2017). Many mothers report feeling unsupported by healthcare providers, family, friends, and even society (Charlick et al., 2018; Taylor et al., 2019; Johnson et al., 2017). Mothers report breastfeeding education can differ between providers, causing confusion and frustration (Hunt & Thomson, 2017). Giving mothers adequate support can help them overcome breastfeeding challenges and increase breastfeeding duration (Bosnjak et al., 2009; Fox et al., 2015).

Social support is known to help people through difficult times of their lives (House, 1981); likewise, and historically in the U.S., social support for breastfeeding mothers was first formally introduced at a time that breastfeeding was being replaced with commercial formula. The first breastfeeding support group in the United States was started in 1956 by the grassroots organization, the La Leche League, with the purpose of mothers teaching and providing support to other breastfeeding mothers (i.e. mother-to-mother support) (Wiessinger et al., 2010). Since then, support groups have flourished and are offered by lay and health care professionals in various settings. Still recognizing the impact and need for support for breastfeeding in the 21st Century, the United States Surgeon General recommended 20 far-reaching actions to better

support breastfeeding mothers (U.S. Department of Health and Human Services., 2011). Two of the actions directly related to this study included Action 3 to “strengthen programs that support mother-to-mother breastfeeding support and breastfeeding peer counselors” and Action 9 to “provide breastfeeding education to healthcare employees that care for mothers and children” (U.S. Department of Health and Human Services., 2011, p. 40, p.46).

Breastfeeding support groups typically meet weekly and mothers can bring their breastfeeding child to receive support, education, and empathy. Typically support groups that meet in hospitals and outpatient clinics are led by an experienced breastfeeding specialist. For example, board-certified lactation consultants can provide assessment and intervention during support groups (Patel & Patel, 2016). Mothers that attend support groups report benefits such as gaining knowledge, confidence, and support (Wade et al., 2009; Leahy-Warren et al., 2017). Accumulated evidence from research regarding breastfeeding support indicates that support is positively associated with breastfeeding exclusivity and duration (McFadden et al., 2017; Patel & Patel, 2016).

A current trend is to virtually receive breastfeeding support online (Audelo, 2014). Many breastfeeding support groups moderate a Facebook private page where women can receive assistance and support 24/7. These groups can be beneficial to mothers who do not have convenient access to a support group or who wish to be in a group with mothers more similar to them (Gribble, 2001). For example, Robinson et al. (2019) found African-American women appreciated connecting online with other African American breastfeeding mothers. Online support may also be important in times of emergency. During the current COVID-19 pandemic many traditional in-person support groups moved online to support mothers and babies.

There is scarce descriptive research regarding mothers' experiences with breastfeeding support groups in the United States. Therefore, the purposes of this study were to 1) describe the experiences of mothers attending breastfeeding support groups; 2) determine reasons for breastfeeding support groups' attendance; and 3) identify perceived benefits for mothers and infants by attending breastfeeding support groups.

Methods

Design

Qualitative descriptive methods were used. Qualitative description is the best research method when a researcher is seeking straight-forward answers about a phenomenon (Sandelowski, 2000). Breastfeeding self-efficacy theory (Dennis, 1999) and House's social support theory guided development of the interview (House, 1981). Breastfeeding support groups can increase (Lee et al., 2019) and offers mothers informational and emotional social support that they may not be getting from family and friends (Leahy-Warren et al., 2017). Thus, these concepts were integrated into the interviews. Approval for study was obtained from the KUMC IRB using the Flexible Review option.

Sample and Setting

The study sample consisted of first-time mothers, breastfeeding a child or children between 2 months and a year old, and having attended at least three breastfeeding support group meetings. The target number of participants selected was twenty. Data collection was completed when saturation of findings had been reached. Similar qualitative studies have used between seven to twenty participants to reach data saturation (Leahy-Warren et al., 2017; Noriko et al., 2017). Seven different support groups were visited once and several groups twice in an effort to recruit a diverse sample. Lactation consultants and La Leche League Leaders shared the study information on their Facebook pages. Mothers in support groups not attended by the researcher

also made contact wanting to be part of the study. If the mother met the criteria she was enrolled, which increased diversity of the sample.

Interviews were conducted in the setting most comfortable to the participant. Most (16) occurred in the participants' homes though two were conducted at a library and two at coffee shops. The researcher, who identifies as mixed race (White/Native American), middle-aged, educated female, although older on average by 10 years, had the shared experience of being a breastfeeding mother and was also a certified lactation consultant, providing credibility in her researcher role. She was able to relate to the participants and was able to use her expertise to assist in data analysis.

Data Collection and Procedures

Rapport-building with participants, an important attribute of qualitative methods (Patton, 2015), began during the breastfeeding support groups. There the researcher introduced herself and explained the study and its purpose. The researcher explained that she wanted to learn about and understand mothers' experiences in attending breastfeeding support groups and how attendance had influenced their breastfeeding experience. Eligible mothers were approached, the study was further explained, and those interested were given an information sheet and asked to provide contact information. Mothers willing to participate in the study signed a consent at the support group or prior to the interview after having time to read through the information sheet and ask questions.

The researcher, who was completing her doctoral dissertation, conducted all interviews. The researcher built upon the initial rapport with the participant and allowing time for the participant to care for her infant throughout the interview. This was done so the participant did

not feel rushed or inconvenienced. Because the researcher has experience with breastfeeding and attending support groups, presupposition questions were used to establish rapport (Patton, 2015).

Semi-structured interviews were used to collect data from participants. Interview questions were open-ended, and prompts were used to ensure all relevant data was obtained. Interviews were recorded using a digital recorder. Participants were numbered and referred to by their number. A cell phone was used as back-up recorder in case of equipment failure. Participant identifiers were not linked with either the audio or transcription of interviews. Audio recordings were transcribed by a third party, who was a HIPAA-certified professional transcriptionist or the researcher. In addition to interviews, triangulation was achieved through observations from the support groups and using related artifacts (e.g. La League periodical).

Data Analysis

Abstraction as described by Graneheim and Lundman (2004) was used for data analysis. Abstraction is the process in which statements are taken from the interviews condensed, grouped, and then coded. The focus of this data analysis was on content area. Content area included parts of the interview, observation, and artifacts. Content area points to specific areas and needs little interpretation which aligns with qualitative description.

After the interviews had been transcribed, the researcher double-checked the transcriptions against the audio to ensure no errors were made. Then the researcher read through multiple times to facilitate immersion in the data and identify meaning units (Marshall & Rossman, 2016). These units were transferred into a table where the researcher condensed the meaning units (Table 5). The condensed meaning units were then grouped under headings to place similar data points together, followed by coding of the condensed meaning units. Finally, the data were reviewed to search for common themes and relationships.

Trustworthiness and Methodological Rigor

Credibility, confirmability, dependability, and transferability (Lincoln & Guba, 1984) were used to ensure trustworthiness and rigor of this study. Multiple strategies included maintaining an audit trail through the recruitment and research process, reflexive journaling to acknowledge and minimize researcher bias, and peer debriefings with three experienced team members.

To aid in the transferability of the findings, the researcher recruited from a variety of breastfeeding support groups including hospital-based, community based, groups affiliated with pediatric clinics, and a group associated with a private practice lactation consultant. Respect, justice, and beneficence were used during the recruitment, interviews and observational experiences. No harm was noted or expressed by participants. Participants may have received a cathartic benefit by sharing their experiences with an empathetic listener (De Chesnay, 2015). Member checks were conducted throughout the interview and at the end of interview to ensure the meaning of participants' thoughts and feelings were conveyed and interpreted accurately (Cutcliffe, & Ramcharan, 2002).

Results

Twenty mothers participated in this study. Participants' ages ranged from 21-37 (mean age = 30.7, $SD = 4.87$). Most participants worked outside the home (16, 80%) and had a college education (17, 85%). The majority of the participants (13, 65%) attended a hospital-based support group (6 different groups represented). A few participants attended a pediatrician-practice based support group (4, 20%), a private practice IBCLC group (2, 10%), and one participant from La Leche League. Infants ranged from two to eleven months. All infants were singleton births except for one set of twins. Additional demographics are reported in Table 4.

Introduction to Qualitative Findings

The identified themes illuminate the stories of mothers who share common experiences in within the diverse types of support groups in this study. Data supporting the themes were also identified through the researcher's observations of support groups. Although reasons for first attending a meeting varied, most mothers commented that they needed help and valued breastfeeding. Many mothers related that they did not have sufficient support outside of the support group to be successful in breastfeeding. One of the participants had attended a support group before the birth of her baby and commented, "I really appreciated getting to see breastfeeding normalized before I had him." Most of the mothers (18, 90%) were also active on support group Facebook pages that were closed to the public. They appreciated being able to get assistance and support in between meetings.

All mothers reported the availability of a scale to weigh their infant at the support group. Most mothers considered the weighing component vital and stated it offered them peace of mind. One mother stated, "Honestly, I have some paranoia about his weight. He dropped some weight down at birth. Going every week reassures me that I am feeding him enough." However, other mothers remarked they were not really concerned about their infant's weight, with one mother remarking "I don't necessarily need to do the weights."

Five themes were developed (Table 6):

1. Mothers felt comfortable speaking openly without being judged.
2. Mothers' mental health improved by getting out and talking with mothers having similar experiences.
3. Mothers needed assistance preparing to return to work.
4. Attendance was driven by the need for help but maintained by comradery.

5. Group support increased mothers' confidence to continue breastfeeding longer.

Theme 1: Mothers felt comfortable speaking openly without being judged.

All mothers expressed appreciation for having a safe space to speak openly and not be judged. Some mothers reported discussing taboo or sensitive subjects such as their sexual relationship, bed-sharing, and not wanting to leave their infant, sharing that they are uncomfortable to discussing such topics with family and friends. One mother stated, "I just always felt there was a place and space that I could ask questions." Another mother remarked, "No one was judgmental - everyone was open and honest. I really felt comfortable asking any questions or talking to the lactation consultant one on one." One mother stated, "Sometimes it's easier to ask an embarrassing question to someone who is more of a stranger than someone who you know really well." Having a comfortable place to share ask questions, vent, and commiserate may have been therapeutic, fostering better mental health.

Theme 2: Mothers' mental health improved by getting out and talking with mothers having similar experiences.

Many mothers commented that they continued attending the support group just to get out of the house and speak with other mothers. They valued connecting with women going through similar experiences. One mother commented that receiving support from attending a breastfeeding support group helped her psychologically. Another mother stated, "We are getting out of the house, we are seeing other moms, meeting other babies. I am breastfeeding, so I am supporting him. It just makes you feel better." Some mothers also explained that learning their breastfeeding experiences were normal helped decrease their anxiety. One mother shared,

I am kind of prime and ready to be a little anxious. I think most new moms are and so knowing that things are normal and that other people are handling it and you can try all these different things it makes it a little less stressed.

Other mothers considered the support group a standing appointment in which social and educational needs were met.

Theme 3: Mothers needed assistance preparing to return to work

Most participants had already returned or planned to return to work and identified the importance and need for assistance with transition from home to work. Mothers stated they received help and information about pumps including flange sizes and recommended pump brands. They also learned how often they would need to pump and approximately how much milk their infant should be taking from a bottle in their absence. Most mothers were worried about their milk supply due to being separated from their infant. Some mothers reported needing to supplement with formula, while others reported the tips they learned at the breastfeeding support group helped them to continue exclusively breastfeeding. A mother stated, “We were talking about balancing going back to work, milk supply dropping with stress, tips and tricks to improve (milk supply), or finding better times to pump so that the supply doesn’t get impacted.” Mothers who needed to return to work had different experiences compared to stay-at-home mothers. However, all participants shared that mothering and breastfeeding were difficult and a time of transition that benefited from support, advice and encouragement.

Theme 4: Attendance was driven by the need for help but maintained by comradery.

Sub-theme 1: Lactation consultants were essential in helping the mothers breastfeed. Most mothers attended support group because they needed help with sore nipples, low milk supply, or inadequate weight gain by the baby. One mother remarked, “At the beginning, every week I had a

question.” Although mothers’ questions and challenges varied, all mothers attended to receive help from a breastfeeding specialist and because they valued breastfeeding and wanted to be successful. Another mother remarked, “The lactation consultants make sure to come in and talk with you especially if you are first time parents to see if there is anything they can help you with.” Some mothers reported feeling uncomfortable attending the meetings at first, often not knowing what to expect. However, they attended despite their discomfort to receive a breastfeeding specialist’s assistance. A mother explained, “They know their information (lactation consultants). I think that's been the key point that's kept me going in. It's been crucial for us.”

Sub-theme 2: Mothers gained perspective and developed a feeling of comradery and community.

Mothers expressed feeling comfort after attending groups and realizing they were not alone in their struggles. Mothers appreciated the advice and support of the other mothers attending the group. One mother stated,

There's a nice comradery that I think that everybody has, to hear different people at different stages and different issues they're having, and a lot of them have the same types of things I have come across and a lot of them are things I imagine I will come across.

Some mothers shared that they had made friendships that extended to outside the support group. The researcher attended one support group meeting where two mothers had just come from a coffee shop together. They also commented about another friend who had not made it and made plans to text her and see how she was doing. A few mothers admitted attending the support group had changed their parenting style. Most commented that it was nice to hear from different perspectives and use what aligned with their own parenting style.

Theme 5: Group support increased mothers' confidence to continue breastfeeding longer.

Most mothers credited their breastfeeding success to attending the group. Mothers explained that breastfeeding was initially difficult. One mother remarked, it (breastfeeding) was the “most unnatural, natural thing” she had ever attempted. Mothers stated that attending support group helped normalize breastfeeding. They realized they were not the only one having trouble. Seeing that other mothers were able to succeed helped give the newer mothers' confidence they could also succeed. Another mother commented, “I remember having the thought, I understand why people give up on this because it can be really frustrating, but I feel like I am not as likely to give up on it because of the support that I have gotten.”

Discussion

The findings of this study as captured in the five themes tell the story of mothers' participation in breastfeeding support groups, why they attended, and what they saw as important characteristics of the groups (e.g. nonjudgmental place to share and learn), and positive outcomes of the ongoing experiences. Mothers mentioned they had improved “mental health”, reduced stress and anxiety due to receiving professional help and social support. The positive group experiences and benefits enabled mothers to continue breastfeeding and meet their breastfeeding goals. Meeting their breastfeeding goals might have also improved the mothers' mental health.

While this is the first study of its kind completed in the United States similar studies have taken place in Ireland (Leahy-Warren et al., 2017; Nolan et al., 2015; Quinn et al., 2019) and the United Kingdom (Fox et al., 2015). There are similarities and differences between our study findings and the findings reported in these studies.

Women felt comfortable speaking openly in support groups in the current study. This was also described by Leahy-Warren et al. (2017) as women feeling comfortable asking any question

in front of the group, and support groups as safe spaces where mothers felt at ease and were encouraged to participate (Quinn et al., 2019). In contrast Hunt and Thomson (2017) found one reason women did not seek out breastfeeding peer support was due to fear of being judged, especially if they needed to bottle feed. Many of the participants in the current study remarked that all women were accepted into the group no matter their manner of feeding. Some of the participants needed to supplement due to returning to work or the baby's inadequate weight gain. These participants felt comfortable and accepted by the support groups they attended.

Mothers reported improved mental health due to opportunities to connect with other mothers. Leahy-Warren et al. (2017) found that attending a support group helped mothers overcome their anxiety and embarrassment of breastfeeding in public. Those mothers also appreciated the normalcy of support groups since many had to deal with negative reactions of others toward their breastfeeding (Leahy-Warren et al., 2017).

The third theme of mothers needing assistance in returning to work was not a common reason for attending support groups in other studies. Perhaps this is unique to United States due to insufficient maternity leave and lack of breastfeeding support in the workplace in the United States (Froh et al., 2018).

The fourth theme of attendance being driven by needing professional and social support was evidenced in the other studies. Nolan et al. (2015) found that mothers valued the support of the public health nurses in the early stages of breastfeeding, but preferred peer support later. Fox et al. (2015) found mothers valued the combination of professional and peer support provided through the meetings. Quinn et al. (2019) found that the mothers in their study went to groups to meet other mothers described in the theme of social support and community. Leahy-Warren et al. (2017) also identified that mothers benefitted from socializing and sharing with other mothers.

Studies have demonstrated that increased maternal confidence is related to longer duration of breastfeeding (Lau et al., 2018; Franco et al., 2020). This was demonstrated through the increased confidence and breastfeeding duration of the current study. Mothers felt their confidence increased and perhaps due to that were able to continue breastfeeding. Fox et al. (2015) found social support from other mothers enabled mothers to continue breastfeeding as long as they wished.

It was noted during observing support groups in this study that some groups had low attendance. One hospital-based lactation consultant shared that only 1% of women who delivered at her hospital attended the support group. Hunt and Thomson (2017) suggest that many mothers chose not to attend breastfeeding support groups and subsequently do not receive the help they need to continue breastfeeding.

Many participants in this study also took part in a Facebook group associated with their breastfeeding support group. During this study, support groups have suspended meetings due to COVID-19 and the need to social distance. And, some support groups are meeting virtually via Zoom or another teleconference medium. Recent research has shown the Facebook breastfeeding groups provide support, community, and increase breastfeeding duration (Franco et al., 2018; Robinson et al., 2019).

Future Research and Implications for Practice

Further research is needed to identify barriers to attending breastfeeding support groups and ways to effectively promote support groups. Research is needed to identify the effectiveness of using on-line social support in comparison to traditional face-to-face groups.

Breastfeeding support groups should be promoted as nonjudgmental communities of mothers that can help a mother receive needed education and support. Breastfeeding support

groups can provide benefits of improved mental health and longer breastfeeding duration.

Mothers returning to work will receive advice on how to manage breastfeeding, pumping, and bottle feeding. Therefore, it is critical that nurses, midwives, and lactation consultants provide education and resources about support groups to mothers before they are discharged from the hospital or birthing centers.

Limitations

This study was limited by the number of available, eligible participants in different support groups. Efforts were made specifically to recruit additional participants from La Leche League (LLL) support groups to enhance diversity of the sample, but most attending LLL participants were not eligible because they had other children or their child was over a year old. Ethnic, racial, and educational diversity was also hindered due to available, eligible participants. Finally, the sample was from a single, albeit large, metropolitan area, in the Midwest United States and therefore may not represent mother's experiences in other parts of the United States.

Conclusions

The aims of this study: to describe the experiences of mothers who attend breastfeeding support groups, determine reasons why mothers attend breastfeeding support groups, and identify benefits mothers and infants receive by attending breastfeeding support groups were addressed by the five themes developed from the narratives (Table 6). Our study supports that breastfeeding support groups provide opportunities for breastfeeding mothers to receive practical help, emotional support, and comradery through social networking. In this pioneering study of support group experiences in the United States, mothers felt comfortable attending and continued to attend to maintain the comradery and support, thereby gaining confidence to continue

breastfeeding. Thus, the findings from our descriptive study add to the current state of evidence on benefits of breastfeeding support group on mother and baby outcomes.

References

- Anstey, E. H., Jian, C., Elam-Evans, L. D., Perrine, C. G., & Chen, J. (2017). Racial and geographic differences in breastfeeding - United States, 2011-2015. *MMWR: Morbidity & Mortality Weekly Report*, 66(27), 723-727. doi:10.15585/mmwr.mm6627a3
- Anstey, E. H., Coulter, M., Jevitt, C. M., Perrin, K. M., Dabrow, S., Klasko-Foster, L. B., & Daley, E. M. (2018). Lactation consultants' perceived barriers to providing professional breastfeeding support. *Journal of Human Lactation*, 34(1), 51-67.
doi:10.1177/0890334417726305
- Audelo, L. (2014). Connecting with today's mothers: Breastfeeding support online. *Clinical Lactation*, 5(1), doi:10.1891/2158-0782.5.1.16
- Binns, C., Lee, M., & Low, W. Y. (2016). The long-term public health benefits of breastfeeding. *Asia-Pacific Journal of Public Health*, 28(1), 7-14. doi:10.1177/1010539515624964
- Bird, H. (2017). Changing the conversation. *Community Practitioner*, 90(6), 24-28.
- Bosnjak, Grguric, J., Stanojevic, M., & Sonicki, Z. (2009). Influence of sociodemographic and psychosocial characteristics on breastfeeding duration of mothers attending breastfeeding support groups. *Journal of Perinatal Medicine*, 37(2), 185-192.
doi:10.1515/JPM.2009.025
- Charlick, S. J., Pincombe, J., McKellar, L., & Gordon, A. L. (2018). Navigating the social complexities of breastfeeding: An interpretative phenomenological analysis of women's experiences. *Evidence Based Midwifery*, 16(1), 21-28.
- Cutcliffe, J. R., & Ramcharan, P. (2002). Leveling the playing field? Exploring the merits of the ethics-as-process approach for judging qualitative research proposals. *Qualitative Health Research*, 12(7), 1000-1010.

- Dennis, C. (1999). Commentary. Theoretical underpinnings of breastfeeding confidence: A self-efficacy framework. *Journal of Human Lactation*, 15(3), 195-201.
- De Chesnay, M. (2015) *Nursing research using data analysis*. Springer.
- Eidelman, A. K., & Schanler, R. J. (2012). Breastfeeding and the use of human milk. *Pediatrics*, 129(3), 598–601. doi:10.1542/peds.2011-3552
- Fox, R., McMullen, S., & Newburn, M. (2015). UK women's experiences of breastfeeding and additional breastfeeding support: A qualitative study of Baby Café services. *BMC Pregnancy & Childbirth*, 15(1), 147. doi:10.1186/s12884-015-0581-5
- Franco, A. C., Calderón, G. J. F. Santano, M. E., Rico, M. S., & Cordovilla, G. S. (2020). Effectiveness of a brief motivational intervention to increase the breastfeeding duration in the first 6 months postpartum: Randomized controlled trial. *Journal of Advanced Nursing (John Wiley & Sons, Inc.)*, 76(3), 888-902. doi:10.1111/jan.14274
- Froh, E. B., Cacino, A., Cerreta, S. K., Karsch, E. A., Kornberg, L. F., Lilley, J. E., Welch, L., & Spatz, D. L. (2018). Status of legislative efforts to promote and protect breastfeeding and the provision of human milk for women returning to work in the first postpartum year. *Breastfeeding Medicine*, 13(7), 506-509. doi:10.1089/bfm.2018.0092
- Graneheim, U. H., & Lundman, B. (2004). Qualitative content analysis in nursing research: concepts, procedures, and measures to achieve trustworthiness. *Nurse Education Today*, 24(2), 105-112
- Gribble K. D., (2001). Mother-to-mother support for women breastfeeding in unusual circumstances: A new method for an old model. *Breastfeeding Review*, 9(3), 13–19.
- House, J. S. (1981). *Work stress and social support*. Addison Publishing.

- Hunt, L., & Thomson, G. (2017). Pressure and judgement within a dichotomous landscape of infant feeding: A grounded theory study to explore why breastfeeding women do not access peer support provision. *Maternal & Child Nutrition*, 13(2), Article e12279. doi:10.1111/mcn.12279
- Johnson, A. M., Kirk, R., Jordan Rooks, A., & Muzik, M. (2017). Enhancing breastfeeding through healthcare support: Results from a focus group study of African American mothers. *MIDIRS Midwifery Digest*, 27(2), 232-233.
- Klimeck Brauner Pissolato, L., Neumaier Alves, C., Alende Prates, L., Antunes Wilhelm, L., & Ressel, L. B. (2015). The breastfeeding experience in recent mothers' view. Contributions for nursing. *Journal of Nursing UFPE / Revista de Enfermagem UFPE*, 9(8), 8771-8777. doi:10.5205/reuol.7696-67533-1-SP-1.0908201502
- Lau, C. Y. K., Lok, K. Y. W. & Tarrant, M. (2018). Breastfeeding duration and the Theory of Planned Behavior and Breastfeeding Self-Efficacy Framework: A systematic review of observational studies. *Maternal & Child Health Journal*, 22(3), 327-342. doi:10.1007/s10995-018-2453-x
- Lee, Y.-H., Chang, G.-L., & Chang, H.-Y. (2019). Effects of education and support groups organized by IBCLCs in early postpartum on breastfeeding. *Midwifery*, 75, 5-11. doi:10.1016/j.midw.2019.03.023
- Leahy-Warren, P., Creedon, M., O'Mahony, A., & Mulcahy, H. (2017). Normalising breastfeeding within a formula feeding culture: An Irish qualitative study. *Women & Birth*, 30(2), e103-e110. doi:10.1016/j.wombi.2016.10.002
- Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. Sage
- Marshall, C., & Rossman, G. B. (2016). *Designing qualitative research* (6th ed.). Sage.

- McFadden, A., Gavine, A., Renfrew, M. J., Wade, A., Buchanan, P., Taylor, J. L., Veitch, E., Rennie, A. M., Crowther, S. A., Neiman, S., & MacGillivray, S. (2017). Support for healthy breastfeeding mothers with healthy term babies. *The Cochrane Database of Systematic Reviews*. <https://doi.org/10.1002/14651858.CD001141.pub5>
- Nolan, A., Kennedy, S., O'Malley, A., Kirwan, M., Hughes, A., Barry, A., Goodwin, V., Cunningham, A. M., Coyne, H., & Nugent, L. (2015). Mothers' voices: Results of a survey of public health nurse-led breastfeeding support groups. *Primary Health Care*, 25(7), 26-31. doi:10.7748/phc.25.7.26.e998
- Noriko, T., Mineko, M., Kayoko, K., & Kiyoko, K. (2017). Qualitative study of breastfeeding support by public health nurses in Japan. *Health*, 9(3), 451-458. doi:10.4236/health.2017.93032
- Patel, S., & Patel, S. (2016). The effectiveness of lactation consultants and lactation counselors on breastfeeding outcomes. *Journal of Human Lactation*, 32(3), 530-541. doi:10.1177/0890334415618668
- Patton, M.Q. (2015). *Qualitative research & evaluation methods* (4th ed.). Sage.
- Quinn, E. M., Gallagher, L., & de Vries, J. (2019). A qualitative exploration of breastfeeding support groups in Ireland from the women's perspectives. *Midwifery*, 78, 71-77. doi:10.1016/j.midw.2019.08.001
- Robinson, A., Davis, M., Hall, J., Lauckner, C., & Anderson, A. K. (2019). It takes an e-village: Supporting African American mothers in sustaining breastfeeding through Facebook communities. *Journal of Human Lactation*, 35(3), 569-582. doi:10.1177/0890334419831652

- Schreck, P. K., Solem, K., Wright, T., Schulte, C., Ronnisch, K. J., & Szpunar, S. (2017). Both prenatal and postnatal interventions are needed to improve breastfeeding outcomes in a low-income population. *Breastfeeding Medicine*, 12(3), 142-148.
doi:10.1089/bfm.2016.0131
- Taylor, A. M., Tejilingen, E., Ryan, K. M. & Alexander, J. (2019). "Scrutinised, judged and sabotaged": A qualitative video diary study of first-time breastfeeding mothers. *Midwifery*, 75, 16-23. doi:10.1016/j.midw.2019.04.004
- U.S. Department of Health and Human Services. (2011). *The Surgeon General's call to action to support breastfeeding*. Washington, DC: U.S. Department of Health and Human Services, Office of the Surgeon General.
- Vanderkruik, R., Lemon, E., & Dimidjian, S. (2015). Breastfeeding support and messaging: A call to integrate public health and psychological perspectives. *Maternal & Child Health Journal*. 19(12), 2545-2547. doi:10.1007/s10995-015-1793-z
- Wade, D., Haining, S., & Day, A. (2009). Breastfeeding peer support: Are there additional benefits? *Community Practitioner*, 82(12), 30-33.
- Wiessinger, D., West D., & Pitman, T. (2010). *The womanly art of breastfeeding* (8th ed.). Ballantine Books.

Table 4*Descriptive Characteristics of Participants (N = 20)*

	<i>n</i>	<i>%</i>
Highest level of education completed		
High School Diploma	3	15
Associate degree	1	5
Bachelor degree	9	45
Graduate degree	7	35
Employment		
Not employed	4	20
Employed part-time	5	25
Employed full-time	11	55
Number of children		
One child	19	95
Two children (twins)	1	5
Type of support group attended		
Hospital-based support group	13	65
Pediatrician office support group	4	20
Private practice IBCLC support group	2	10
La Leche League	1	5

Table 4 (*Continued*)

	<i>n</i>	<i>%</i>
Number of support groups attended by participants		
3-6	8	40
6-10	6	30
11-20	4	20
> 20	2	10
Mother's age		
21-25 years	5	25
26-30 years	3	15
31-35 years	9	45
35-37 years	3	15
Infant's age		
2-3 months	8	40
4-5 months	6	30
6-8 months	4	20
9-12 months	2	10

Table 5

Examples of Coding (Interview question: Would you have had enough support without the group?)

Meaning unit	Condensed meaning unit	Code
Um, I don't, it was helpful, but I would have struggled a lot more if that's the only like answers and help I got. I think that I mean I probably had more help than others, but I think that I would've had a lot harder time without having been going to the support group and getting like my questions answered like weekly.	Would have been harder without support group	Made a difference
No, because I think because we have such a big weight drop with her to the point where she almost got admitted like the week she got discharged from the hospital, the weight checks and just the resource there, I mean it's been sort of a lifeline you know, just making sure that she's okay in between doctor's visits and they're just very nice.	We needed the weight checks and it was a lifeline making sure she's okay	No Weigh Baby Made a difference Peace of mind
Um, no, I am really glad that I have had the support group too. Sometimes it's, you know there's a thing about it's easier kind of an embarrassing question to someone who is more of a stranger than someone who you know really well, so that's a good chance to just ask a really weird, random question you know to people who aren't going to, I mean, I guess I am not afraid of my friends or family judging me necessarily, but sometimes it's more embarrassing to talk to them about something a little bit more personal that's kind of new. So, no, I don't. I think that it would be a lot harder.	I can ask embarrassing questions It would have been a lot harder	Speak openly No judgement Made a difference
I don't think so. In the beginning it helped so much. I encouraged my sister-in-law to attend she just had twin baby girls and it made all the difference. It was more an emotional thing for me. I didn't realize how hard it was being sleep deprived and hearing other moms say they went through that too. I don't know if I would have kept breastfeeding.	It helped so much It was more an emotional thing I don't know if I would have kept breastfeeding	No Made all the difference Mental health Breastfeeding duration

Table 6*Study Aims and Corresponding Themes*

Aims	Themes
(1) Describe the experiences of mothers who attend breastfeeding support groups.	(1) Mothers felt comfortable speaking openly without being judged (2) Mothers' mental health was improved by getting out and talking with mothers having similar experiences
(2) Determine reasons why mothers attend breastfeeding support groups.	(3) Mothers needed assistance preparing to return to work (4) Attendance was driven by the need for help but maintained by comradery
(3) Identify benefits mothers and infants receive by attending breastfeeding support groups.	(2) Mothers' mental health was improved by getting out and talking with mothers having similar experiences (5) Group support increased mothers' confidence to continue breastfeeding longer.

Chapter 5

Summary

Improving breastfeeding education and support for breastfeeding dyads and families is crucial to improving breastfeeding initiation, continuation and duration and ultimately health outcomes for mothers and children. Efforts to improve support and education can be targeted directly at mothers and families or indirectly through health care provider training and education. Mothers who are breastfeeding need access to education and support to be successful. Healthcare providers especially nurses need better breastfeeding education to support their breastfeeding patients.

The purpose of this dissertation was to explore education and support interventions known to have an impact on breastfeeding success by conducting three scholarly projects. Two projects, presented in Chapter 2 and 4, involved original research and one project, presented in Chapter 3, was a clinical education and practice piece based in published literature and professional experience. The first, a quasi-experimental study, focused on providing innovative, interactive, multicomponent breastfeeding education to student nurses. The second scholarly project focused on developing a curriculum for use in hospital-based breastfeeding support groups. Both these education-related areas are recommended by the Surgeon General in the *Surgeon General's Call to Action to Support Breastfeeding* (U.S. Department of Health and Human Services., 2011). The third scholarly project, also empirical in nature, was a qualitative descriptive study that examined the experiences of mothers who attended breastfeeding support groups.

Summary of Scholarly Papers

Chapter Two

A small “natural” quasi-experimental study was used to examine the effect of an educational intervention on knowledge and attitudes concerning breastfeeding among pre-licensure nursing students using a two-group design. One group received multifaceted

breastfeeding education from a professor certified as an International Board-Certified Lactation Consultant (IBCLC), while the historical comparison group received a single simulation education experience from a non-IBCLC professor. The two groups were compared for demographic and mean differences in knowledge, attitudes, perceived adequacy of education, and confidence in ability to assist mothers with breastfeeding. Results of the study showed no significant difference between the two groups in total knowledge, total attitude, and confidence in ability to assist breastfeeding mothers. However, there were some individual items that showed a significant difference. The students of the intervention group had a more positive attitude toward combining work and breastfeeding. This may be due to this subject being part of the lactation simulation they received. This is important since more mothers are working outside their home and trying to maintain breastfeeding (Froh et al., 2018).

Chapter Three

This paper was originally completed to fulfill the author's minor requirement for nursing education. The author used strategies she learned in her minor classes to help develop this curriculum. The paper was revised to make it more scholarly and publishable.

A curriculum for hospital-based breastfeeding support groups was proposed. Breastfeeding support groups are associated with increased duration of breastfeeding (Fox et al., 2015). The last step of the Baby Friendly *Ten Steps* focuses on helping mothers after discharge from the hospital and calls for provision of postpartum breastfeeding support, including providing a support group or directing mothers to local support groups (Baby-Friendly USA, 2012). However, there is no standard defined structure or curriculum for breastfeeding support groups. A review of literature was completed. The sparse literature that was found gave insight into best practices for leading a breastfeeding support group. This included facilitating

discussion, giving mothers realistic expectations, having a scale available for weighing infant, and being nonjudgmental of mothers (Nolan et al., 2015; Green, 2012; Schmied et al., 2011). To provide additional elements to the curriculum other research and texts concerning breastfeeding were used in combination with the researcher's experience in both attending and leading support group meetings.

Chapter Four

A qualitative descriptive study on the experiences of mothers who attend breastfeeding support groups was conducted. This is the only study of its kind in the United States. Similar studies have been conducted in the United Kingdom, but since breastfeeding experiences are influenced by culture their results may not be transferable to mothers in the United States. The researcher attended several support groups for observation and recruitment purposes. The study resulted in five themes describing the support experiences, reasons for attending, and benefits and outcomes of the groups. These themes were interpreted within the context of existing research evidence and shown to be comparable despite the difference in study settings. However, a notable difference was returning to work was a major concern and reason for support group attendance in this American study and not in the European studies.

Synthesis of Scholarly Papers

These three papers have been amassed to broaden the literature on improving breastfeeding education. Findings of these papers can provide nurse educators and healthcare providers with valuable information to help educate their students or patients. Student nurses need to understand their responsibility to educate and support their breastfeeding patients. Healthcare workers and mothers need to be aware that breastfeeding support groups are a valuable resource and can help mothers overcome breastfeeding challenges and be successful in meeting breastfeeding goals.

Implications for Nurse Educators

Much can be gleaned from the quasi-experimental study described in Chapter 2. Nursing students and graduates need proper breastfeeding education to assist and support their breastfeeding patients. Nurse educators need to ensure students feel prepared and confident in their breastfeeding knowledge and caring skills. It may work better to spread the breastfeeding content and instruction out and use different instructional methods as was done in this study. A simulation was completed where students were asked to trouble shoot common breastfeeding challenges. A debate was conducted by two groups of students focusing on the pros and cons of breastfeeding. Lastly a lecture was given which included students watching videos on manual expression and animation of the interior of an infant's mouth while breastfeeding. Along with each educational component the instructor was able to share real-life experiences. Students were also given the opportunity to ask any questions and ensure they understood the material presented. This may be why the students in the second group answered more positively to feeling they had received adequate breastfeeding education. The hallmark of this breastfeeding instruction may have been the varied opportunities for "interaction" or "active learning" with the content, student peers, and the educator through the various instructional approaches. Interaction methods of learning such as the debate and simulation used in this educational intervention have been shown to increase learning and promote skill development (Bortolato-Major et al., 2018; Pederson, 1992).

Both groups felt negatively towards their confidence of being able to assist a breastfeeding mother. This is not surprising since their education and experience is limited. However, the intervention group was also encouraged to spend time with the lactation consultant during their clinical rotations.

Lactation consultants are experts in assisting a mother with breastfeeding and breastfeeding education. However, many students may not have the opportunity to talk with an IBCLC during their schooling. Recommendations for how IBCLCs can be utilized in nursing education regarding breastfeeding include: 1) shadowing experiences in clinical practicum to give students an idea of what lactation consultant does and how to support mothers; 2). IBCLC guest presentation during pre or post clinical conferences; and 3) IBCLC guest lecture on infant feeding during the didactic learning experience to include real-life experiences of lactation care, and answering any student questions on the subject.

Implications for Breastfeeding Support Group Leaders

The curriculum paper (Chapter 3) and the qualitative paper (Chapter 4) of this dissertation focused on breastfeeding support groups. There are many insights from these two scholarly papers to assist the breastfeeding support group leaders. The curriculum paper provided instructional guidance and important curricular topics to fuel a successful and meaningful support group. For example, support group leaders can use a “facilitative style” or approach to leading group meetings (Schmied et al., 2011). This style can be achieved by providing realistic, accurate, and detailed information in an encouraging, interactive, positive and non-pressuring manner. Support group leaders can and should encourage and facilitate discussion between group members (Schmied et al., 2011). Mothers want meetings to have structure, but be informal (Nolan et al., 2015; Green, 2012). Mothers should feel comfortable arriving late or leaving early to make the support group flexible to meet the schedules of the mothers and infants.

Breastfeeding challenges need to be addressed during support groups. These can include slow weight gain for infant, weaning, nighttime feeding, cluster feeding, teething, returning to work, and breastfeeding in public. Mothers many times need help with latch and positioning. The

mothers in the qualitative study appreciated a lactation consultant or nurse coming around and giving them individual attention when they were new to the group and needed help.

Social networking and comradery was a driving factor for mothers in the qualitative study sample to continue attending the breastfeeding support groups. Mothers reported feeling comradery, community, and appreciated gaining perspective from other mothers. For this reason, it is important that support groups allow time for mothers to interact, discuss, and make connections. Some of the mothers in the qualitative study reported making friends in support group. Mothers that had not made friends said that they would be interested in making a friend and could see how friendships could form through attending the support group and meeting other mothers that value breastfeeding. One support group that was attended held holiday parties and birthday parties for the infants who turned one and were still attending.

Another emerging phenomena of breastfeeding support groups is the presence of social media in the breastfeeding support community. All but two of the participants (90%) in the qualitative study reported being active in a closed Facebook group associated with the breastfeeding support group they attended. The mothers appreciated being able to get assistance and support 24/7 and in between breastfeeding support group meetings. Considering the COVID-19 pandemic, some of the support groups that were attended and recruited from have moved their support groups online through the Zoom teleconference application. Additional research is needed to see if these online formats offer the same benefits as in-person support groups.

Hunt and Thomson (2017) found fear of judgement and not knowing what transpired during support groups as two barriers to women attending breastfeeding support groups. Participants in the qualitative study reported the experience of being able to speak openly without fear of judgement. It is important this kind of experience is shared by health care

providers with their patients, i.e. potential support group participants. They need to be reassured that they will be accepted and included no matter how they feed or parent their infant. Some mothers from the qualitative study expressed feeling uncomfortable attending the meeting at first due to uncertainty of what they might experience. Healthcare providers can use the results from the qualitative study to reassure mothers they will not be judged and explain the typical structure of the support group. Healthcare providers can also use the implications for practice from the curriculum project to give mothers examples of content and issues that maybe discussed during a meeting.

Implications for Research

Future research is needed to determine the effectiveness of breastfeeding support groups on mothers' breastfeeding self-efficacy, mental health, and breastfeeding duration. I would like to design an instrument based upon my findings from the curriculum and qualitative paper to measure support groups effectiveness. This tool could help support group facilitators identify what areas they could improve to better educate and support their participants. This tool could also help measure the effectiveness of online support groups and how they compare to breastfeeding support groups.

Additional research is also needed to determine effective educational methods and interventions to teach nursing students content they need to support their breastfeeding patients. I would like to be involved in the design and conduct of a multi-site university study, which would allow a larger, more diverse sample than the quasi-experimental study.

Limitations of the Studies

The quasi-experimental study had limitations related to the design, convenience sample, and historical control group. Quasi-experimental designs lack strength to make causality

inferences (Hulley et al., 2013). Internal validity of quasi-experimental designs is most at risk (Hulley et al., 2013). Also, the two groups were not equivalent. The comparison group was older with more students who were parents and had more personal experience with breastfeeding. This could have been a factor in the lack of significant results. Only one university was studied and the students were primarily white females.

The curriculum paper had the limitation of sparse literature to draw from to develop a curriculum. Although there were several articles on breastfeeding support groups only a few shared specific topics and strategies that should be included in a curriculum. Studies found had low levels of evidence (5-6) and included no experimental design studies. No other studies proposing a specific curriculum were found. Further research is needed to see if additional topics should be added and to ensure the curriculum is relevant.

The qualitative study of breastfeeding support group experiences was limited by the number of available, eligible participants in different support groups. Efforts were made specifically to recruit additional participants from La Leche League (LLL) support groups to enhance diversity of the sample, but most attending LLL participants were not eligible because they had other children or their child was over a year old. Ethnic, racial, and educational diversity was also hindered due to available, eligible participants. Finally, the sample was from a single, albeit large, metropolitan area, in the Midwest United States and therefore may not represent mother's experiences in other parts of the United States.

Conclusions

The scholarly products of this dissertation provide feasible, realistic interventions to help improve breastfeeding instruction for nursing students and practical and informational support for breastfeeding mothers. Improved breastfeeding curricula and teaching methods for pre-

licensure nursing programs and breastfeeding support groups can ensure breastfeeding education and support is efficient, comprehensive, and applicable. The first hope of this researcher is that more nurses will graduate knowing the importance of breastfeeding and realizing it is their responsibility to support and provide education to breastfeeding mothers. The second hope is that more healthcare providers and breastfeeding mothers will understand the benefits of attending breastfeeding support groups. This could lead to more mothers attending support groups and receiving the education and social support they need to meet their breastfeeding goals, and perhaps enhance breastfeeding exclusivity and duration.

References

Baby-Friendly USA. (2012). *10 steps and international code*.

<https://www.babyfriendlyusa.org/about-us/10-steps-and-international-code>

Bortolato-Major, C., Perez Arhur, J., Taís Mattei daSilva, Â., de Fátima Mantovani, M., Cestari

Felix, J. V., & Boostel, R. (2018). Contributions of the simulation for undergraduate nursing students. *Journal of Nursing UFPE / Revista de Enfermagem UFPE*, 12(6), 1751-1762. doi:10.5205/1981-8963-v12i6a230633p1751-1762-2018

Fox, R., McMullen, S., & Newburn, M. (2015). UK women's experiences of breastfeeding and additional breastfeeding support: A qualitative study of Baby Café services. *BMC Pregnancy & Childbirth*, 15(1), 147. doi:10.1186/s12884-015-0581-5

Froh, E. B., Cacino, A., Cerreta, S. K., Karsch, E. A., Kornberg, L. F., Lilley, J. E., Welch, L., & Spatz, D. L. (2018). Status of legislative efforts to promote and protect breastfeeding and the provision of human milk for women returning to work in the first postpartum year. *Breastfeeding Medicine*, 13(7), 506-509. doi:10.1089/bfm.2018.0092

Green, K. (2012). 10 must-dos for successful breastfeeding support groups. *Breastfeeding Medicine*, 7, 346-347.

Hulley, S. B., Cummings, S. R., Browner, W. S., Grady, D. G., & Newman, T. B. (2013). *Designing clinical research* (4thed.). Lippincott William and Wilkins.

Hunt, L., & Thomson, G. (2017). Pressure and judgement within a dichotomous landscape of infant feeding: A grounded theory study to explore why breastfeeding women do not access peer support provision. *Maternal & Child Nutrition*, 13(2), Article e12279. doi:10.1111/mcn.12279

- Nolan, A., Kennedy, S., O'Malley, A., Kirwan, M., Hughes, A., Barry, A., Goodwin, V.,
Cunningham, A. M., Coyne, H., & Nugent, L. (2015). Mothers' voices: Results of a
survey of public health nurse-led breastfeeding support groups. *Primary Health Care*,
25(7), 26-31. doi:10.7748/phc.25.7.26.e998
- Pederson, C. (1992). Effects of structured controversy on students' perceptions of their skills in
discussing controversial issues. *Journal of Nursing Education*, 31(3), 101-106.
- Schmied, V., Beake, S., Sheehan, A., McCourt, C., & Dykes, F. (2011). Women's perceptions
and experiences of breastfeeding support: A metasynthesis. *Birth: Issues in Perinatal
Care*, 38(1), 49–60. doi:10.1111/j.1523-536X.2010.00446.x
- U.S. Department of Health and Human Services. (2011). *The Surgeon General's call to action to
support breastfeeding*. Washington, DC: U.S. Department of Health and Human
Services, Office of the Surgeon General.

Appendix A
Breastfeeding Support Group Study

Have you attended more than 3 breastfeeding support group meetings? Then you are eligible to participate in a research study! The study consists of one interview approximately one hour long.



For your participation you will receive a \$25 gift card. If interested in participating please contact Karman Romero, PhD candidate, University of Kansas School of Nursing, 816-500-0862 or kromero3@kumc.edu



Appendix B
Research Consent Form

Experiences of Mothers who Attend Breastfeeding Support Groups

Karman Romero

Kromero3@kumc.edu; 816-500-0862

You are being invited to join a research study being done at the University of Kansas Medical Center (KUMC) by Karman Romero. Being in this study is optional. You can decide not to participate or stop at any time. Regardless of your decision, you will still get the same care from your health care team.

Why is this study being done?

You are being asked to participate in a study that aims to explore the experiences of women who attend breastfeeding support groups. You are being asked to participate in this study because you are currently breastfeeding your child and have attended at least three breastfeeding support groups. Participation in this study is voluntary.

What am I being asked to do?

If you agree to participate in this study, Karman Romero will complete an interview with you. The interview can take place in your home or in mutually agreed upon location. Please feel free to have your infant with you during the interview and attend to his/her needs. The interview will last approximately an hour. During the interview you will be asked about why you attend a breastfeeding support group, what you have learned by attending the support groups, and questions about your breastfeeding relationship with your child. This interview will be audio-recorded. The researcher may also take notes during the interview. After the interview, the researcher may need to contact you for additional information. You may choose to not answer the additional questions.

Are there risks or discomforts to consider?

There are no known risks to this study. You may decline to answer any question you

are not comfortable answering.

Are there any benefits to joining the study?

Some participants feel like they receive a benefit by discussing their experiences.

Will I be paid to participate?

In appreciation of your time, we will provide a \$25 gift card of your choosing.

How will confidentiality and privacy be protected?

There is a small risk of loss of confidentiality when personal information is used for research. Your information will only be used by study team members and approved researchers. When we write up our results or make presentations, we will not use any names.

We will follow the HIPAA laws about privacy. Study records will include your health information and information we collected about you during the research. We will keep your study information indefinitely. The study information will be kept separately from your name and other personal identifiers. Study information will be shared with members of the research team. It might also be seen by people who monitor research if there was an audit.

We will do our best to protect the confidentiality of your information. If study information is shared outside KUMC, it will have your name and other direct identifiers removed. It is possible that information shared outside KUMC might be released by others and no longer protected by HIPAA laws. Removing direct identifiers will lessen this risk.

If you want to cancel your permission to use your health information, please write to Dr. Karen Wambach. The mailing address is Dr. Karen Wambach, University of Kansas Medical Center, 3901 Rainbow Boulevard, Kansas City, KS 66160. If you cancel permission to use your health information, we will not gather any new information about

you; however, we may use and share information that was gathered before we received your cancellation.

Consent

Please talk to the research team if you have any questions about joining the study. If you have questions about the rights of research participants, you may contact the KUMC Institutional Review Board at (913) 588-1240 or humansubjects@kumc.edu.

If you agree to join, please sign and date below. You will receive a signed copy of this form.

Printed name: _____

Signature: _____

Date _____

Appendix C

Demographic and Qualitative Interview Questions

Thank you so much for agreeing to participate in this study. The purpose of this study is to learn about the experiences of women who attend breastfeeding support groups. Please be thorough in answering the interview questions and include all details you can remember related to the questions.

Mother's age:

Parity:

Work status:

Highest level of education completed:

Child's age:

Type of support group attended:

Number of support groups attended:

1. What were some of the things discussed in the last support group you attended?
2. What led you to attend the support group?
3. How did you decide which support group to attend?
4. How did you feel during the breastfeeding support group?
5. What aspects of the group made you comfortable or uncomfortable?
6. Did you have any questions you took to the support group? Can you tell me what the questions were? How were they answered? Did you feel satisfied with the answers and attention your questions received?
7. Please explain anything new you learned at a meeting, Was it from another mother or the leader of the group?
8. Did you learn anything helpful concerning a topic related to maternal or infant health in general, separate from breastfeeding?
9. Describe how attending the breastfeeding support group influenced your breastfeeding relationship with your infant?
10. How has attending the breastfeeding support group influenced how you mother your infant?
11. What are the reasons you either plan to attend future groups or do not?
12. What did you most enjoy about the support group?
13. What did you least enjoy about the support group?
14. What about the support group made it convenient or inconvenient for you and your baby to attend?
15. Please share any additional information concerning your experiences attending a breastfeeding support group that has not already been shared.

16. Please describe other support you have received for breastfeeding beyond the support group and who you received support from (such as family, friends, clinic appointments, assistance from lactation consultant).
17. Do you consider the other support adequate for your needs?

Appendix D

Australian Breastfeeding Knowledge and Attitude Questionnaire

(Brodrigg, Fallon, Jackson, & Hegney, 2008a)

Response Options:

Strongly disagree, Disagree, Neither agree nor disagree, Agree, Strongly agree

1. Infant formula is more easily digested than breast milk.
2. Breast milk is the ideal food for babies.
3. Formula feeding is a good way of letting fathers care for the baby.
4. Breastfeeding and formula feeding are both equally acceptable methods of feeding infants.
5. Breastfeeding increases mother infant bonding.
6. A mother knows instinctively how to breastfeed.
7. Breastfeeding provides health benefits for infants that cannot be provided by infant formula.
8. Mothers who smoke should formula feed their babies.
9. Breastfeeding is incompatible with working outside the home.
10. Fathers feel left out if a mother breastfeeds.
11. Breastfed babies need to be fed too often.
12. Infant formula is as healthy for an infant as breast milk.
13. Breastfeeding is more convenient than formula feeding.
14. Formula feeding is the better choice if the mother plans to go out to work.
15. The benefits of breast milk last only as long as the baby is breastfed.
16. Mothers who formula feed miss one of the great joys of motherhood.
17. A mother who occasionally drinks alcohol should not breastfeed her baby.
18. Formula feeding is more reliable because you can calculate the exact quantity of milk the baby is getting.
19. Current infant formulas are nutritionally equivalent to breast milk.
20. Women should not breastfeed in public places such as restaurants.
21. Exclusive breastfeeding (no other fluids or solids) is the most beneficial form of infant feeding for the first 6 months of life

22. Breastfeeding reduces the incidence of gastroenteritis in the infant
23. Formula feeding has been associated with improved neurodevelopment
24. Formula-fed infants have more ear infections than breastfed infants
25. Removal of breast milk (either by breastfeeding or expressing) is essential to maintain milk production.
26. High maternal prolactin levels are essential for the initiation of lactation
27. The nutritional content of breast milk changes throughout a breastfeed.
28. It is normal for an adequately breastfed 2-week-old infant to only pass a bowel motion every 3 days or so.
29. Growth of breastfed infants differs from that of formula-fed infants
30. In the first few weeks after birth, a normal breastfed infant will usually feed 8-12 times in 24 hours.
31. Breastfeeding is contraindicated for women with hepatitis C
32. A breastfeeding woman should be advised to wean if she becomes pregnant.
33. A woman who has had a previous benign breast biopsy is usually unable to breastfeed.
34. Introducing complementary feeds (water or formula) interferes with the establishment of breastfeeding.
35. Increasing her fluid intake will increase a mother's milk supply.
36. In general, the most appropriate advice to give a woman with a low milk supply is to increase the frequency of breastfeeds.
37. A "top-up" bottle after each breastfeed is the best way to manage an infant who is not gaining weight adequately.
38. Antenatal nipple preparation prevents nipple soreness in the first week postpartum.
39. The most common cause of cracked nipples is poor positioning and attachment of the infant at the breast.
40. All women with cracked nipples should express their milk and rest the nipples for 24 hrs
41. A woman with mastitis should express and discard her milk from that breast until treatment is complete.
Strongly disagree, Disagree, Neither agree nor disagree, Agree, Strongly agree
42. Amoxicillin is the drug of choice to treat mastitis in a woman 3 months postpartum.

Additional Demographic Information

1. Age: _____
2. Gender: Male or Female
3. Are you a parent? Yes or NO
4. Do you have experience with breastfeeding or have a partner who breastfed? Yes or No
5. I feel I have received adequate education on breastfeeding as part of my nursing education?
6. Strongly disagree, Disagree, Neither agree nor disagree, Agree, Strongly agree
7. I am confident in my ability to provide breastfeeding support?

Responses: Strongly disagree, Disagree, Neither agree nor disagree, Agree, Strongly agree

Appendix E
Approval Form

Dear KARMAN ROMERO,

Your proposal to the CUHSR entitled BREASTFEEDING KNOWLEDGE AND ATTITUDES OF NURSING STUDENTS FOLLOWING INSTRUCTION BY A CERTIFIED LACTATION CONSULTANT has been granted expedited approval. You are now authorized to begin data collection.

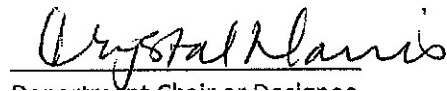
When you are finished with the project, return to the CUHSR web site and submit a final status report. If your data collection takes longer than the 180 days that were approved, you will be required to file an extension.

Your proposal has been assigned proposal id 3107. Please record this number.


PLEASE PRINT THIS EMAIL, SIGN IT, HAVE YOUR DEPARTMENT CHAIR SIGN IT, AND FORWARD IT TO THE CHAIR OF THE CUHSR



Principle Investigator



Department Chair or Designee


Chair of the MWSU CUHSR